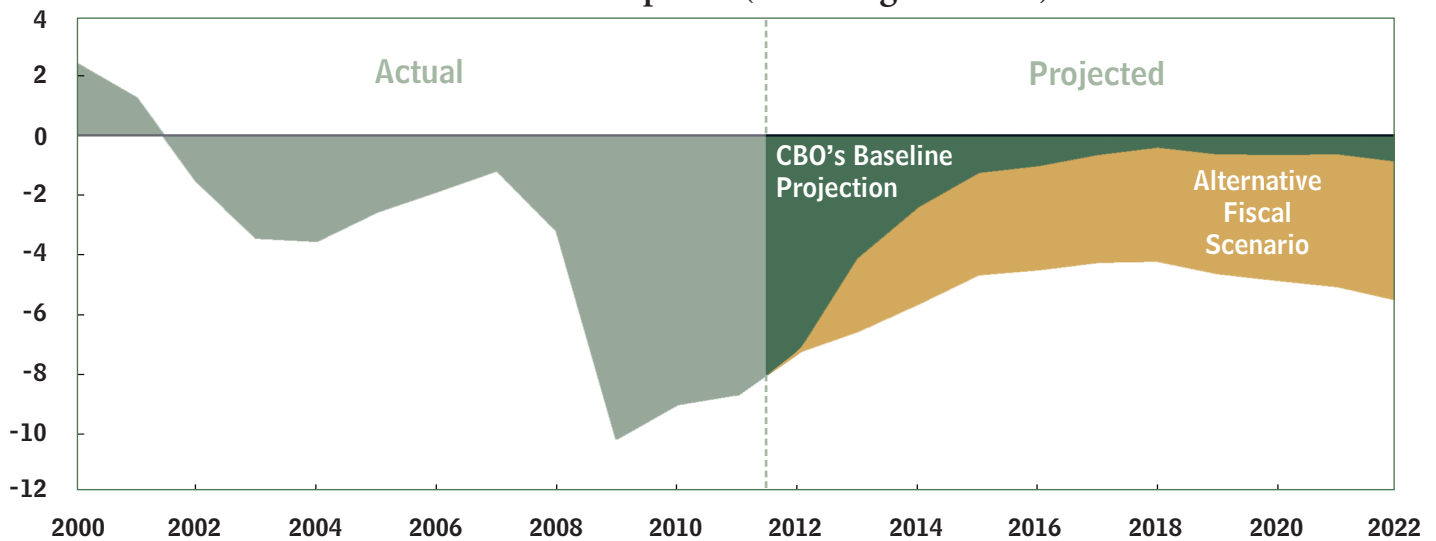


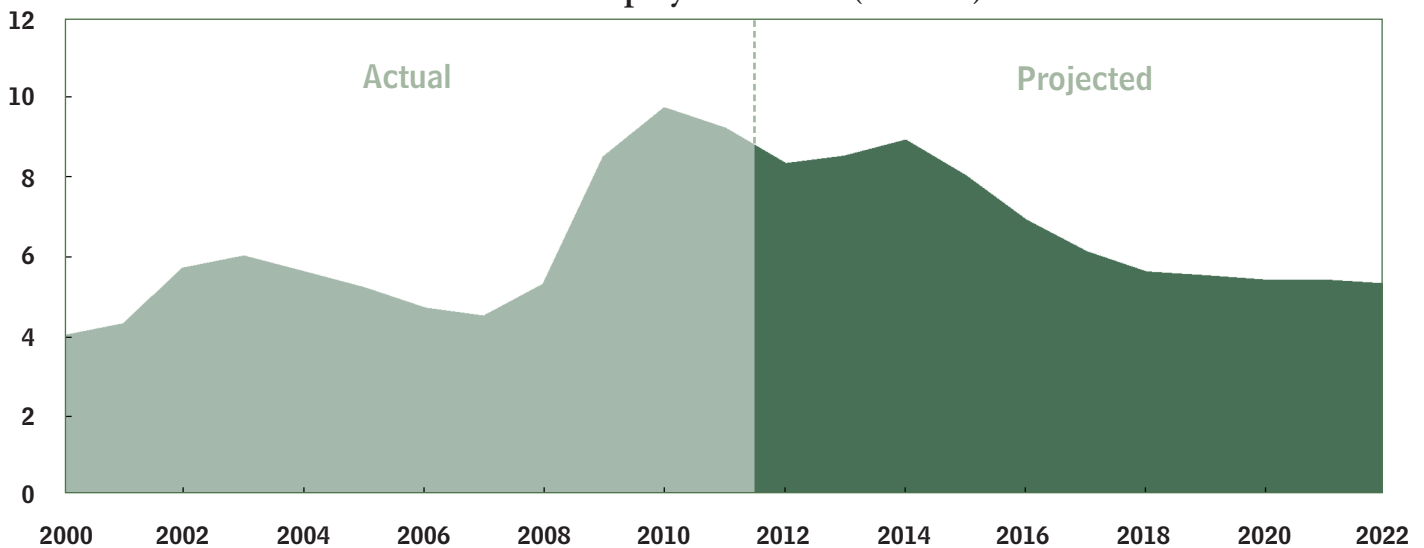
# CBO

## An Update to the Budget and Economic Outlook: Fiscal Years 2012 to 2022

Deficits or Surpluses (Percentage of GDP)



The Unemployment Rate (Percent)



AUGUST 2012

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## Notes

Unless otherwise indicated, all years referred to in describing the economic outlook are calendar years; other years are federal fiscal years (which run from October 1 to September 30).

Numbers in the text and tables may not add up to totals because of rounding.

The figures in Chapter 2 use white vertical bars to indicate periods of recession. (A recession extends from the peak of a business cycle to its trough.)

CBO initially completed its economic forecast in early July. As such, the forecast described in this report does not reflect any other developments since then, including the annual revision to the national income and product accounts, which were released by the Commerce Department's Bureau of Economic Analysis on July 27. In Chapter 2, only figures and discussions of recent events are consistent with the revised data. The revisions to the national income and product accounts are unlikely to have a major effect on CBO's projections.

Supplemental data for this analysis are available on CBO's Web site ([www.cbo.gov](http://www.cbo.gov)).

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# Summary

**T**he federal budget deficit for fiscal year 2012 (which ends on September 30) will total \$1.1 trillion, the Congressional Budget Office (CBO) estimates, marking the fourth year in a row with a deficit of more than \$1 trillion. That projection is down slightly from the \$1.2 trillion deficit that CBO projected in March.<sup>1</sup> At 7.3 percent of gross domestic product (GDP), this year's deficit will be three-quarters as large as the deficit in 2009 when measured relative to the size of the economy. Federal debt held by the public will reach 73 percent of GDP by the end of this fiscal year—the highest level since 1950 and about twice the 36 percent of GDP that it measured at the end of 2007, before the financial crisis and recent recession.

CBO expects the economic recovery to continue at a modest pace for the remainder of calendar year 2012, with real (inflation-adjusted) GDP growing at an annual rate of about 2¼ percent in the second half of the year, compared with a rate of about 1¾ percent in the first half. The unemployment rate will stay above 8 percent for the rest of the year, CBO estimates, and the rate of inflation in consumer prices will remain low.

## The Budget and Economic Outlook for 2013

Following its usual procedures, CBO has prepared *baseline projections* that incorporate the assumption that current laws generally remain in place; those projections are designed to serve as a benchmark that policymakers can use when considering possible changes to those laws. However, the outlook for the budget deficit, federal debt, and the economy are especially uncertain now because substantial changes to tax and spending policies are scheduled to take effect in January 2013. Therefore, CBO has also prepared projections under an *alternative*

*fiscal scenario*, which embodies the assumption that many policies that have recently been in effect will be continued.

Among the policy changes that are due to occur in January under current law, the following will have the largest impact on the budget and the economy:

- A host of significant provisions of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (Public Law 111-312) are set to expire, including provisions that extended reductions in tax rates and expansions of tax credits and deductions originally enacted in 2001, 2003, or 2009. (Provisions designed to limit the reach of the alternative minimum tax, or AMT, expired on December 31, 2011.)
- Sharp reductions in Medicare's payment rates for physicians' services are scheduled to take effect.
- Automatic enforcement procedures established by the Budget Control Act of 2011 (P.L. 112-25) to restrain discretionary and mandatory spending are set to go into effect.
- Extensions of emergency unemployment benefits and a reduction of 2 percentage points in the payroll tax for Social Security are scheduled to expire.

With those and other policy changes contained in current law, the deficit will shrink to an estimated \$641 billion in fiscal year 2013 (or 4.0 percent of GDP), almost \$500 billion less than the shortfall in 2012 (see Summary Table 1). Such fiscal tightening will lead to economic conditions in 2013 that will probably be considered a recession, with real GDP declining by 0.5 percent between the fourth quarter of 2012 and the fourth quarter of 2013 and the unemployment rate rising to about 9 percent in the second half of calendar year 2013 (see

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1. See Congressional Budget Office, *Updated Budget Projections: Fiscal Years 2012 to 2022* (March 2012).

**Summary Table 1.****CBO's Baseline Budget Projections**

	Actual,												Total	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-2017	2013-2022
In Billions of Dollars														
Revenues	2,303	2,435	2,913	3,208	3,541	3,817	4,083	4,328	4,551	4,790	5,039	5,295	17,562	41,565
Outlays	3,603	3,563	3,554	3,595	3,754	4,003	4,206	4,407	4,681	4,932	5,183	5,509	19,111	43,823
<b>Deficit (-) or Surplus</b>	<b>-1,300</b>	<b>-1,128</b>	<b>-641</b>	<b>-387</b>	<b>-213</b>	<b>-186</b>	<b>-123</b>	<b>-79</b>	<b>-130</b>	<b>-142</b>	<b>-144</b>	<b>-213</b>	<b>-1,549</b>	<b>-2,258</b>
On-budget	-1,367	-1,192	-679	-405	-220	-193	-132	-88	-130	-126	-109	-154	-1,629	-2,236
Off-budget <sup>a</sup>	67	64	38	19	7	7	9	9	*	-16	-36	-59	80	-22
Debt Held by the Public at the End of the Year	10,128	11,318	12,064	12,545	12,861	13,144	13,371	13,536	13,746	13,964	14,181	14,464	n.a.	n.a.
As a Percentage of Gross Domestic Product														
Revenues	15.4	15.7	18.4	19.6	20.3	20.6	20.7	20.8	20.9	21.1	21.2	21.4	20.0	20.6
Outlays	24.1	22.9	22.4	21.9	21.5	21.6	21.4	21.2	21.5	21.7	21.8	22.3	21.7	21.7
<b>Deficit</b>	<b>-8.7</b>	<b>-7.3</b>	<b>-4.0</b>	<b>-2.4</b>	<b>-1.2</b>	<b>-1.0</b>	<b>-0.6</b>	<b>-0.4</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.9</b>	<b>-1.8</b>	<b>-1.1</b>
Debt Held by the Public at the End of the Year	67.7	72.8	76.1	76.6	73.8	70.8	67.9	65.2	63.2	61.4	59.8	58.5	n.a.	n.a.

Source: Congressional Budget Office.

Note: \* = between -\$500 million and zero; n.a. = not applicable.

a. Off-budget surpluses or deficits comprise surpluses or deficits in the Social Security trust funds and the net cash flow of the Postal Service.

Summary Table 2). Because of the large amount of unused resources in the economy and other factors, the rate of inflation (as measured by the personal consumption expenditures, or PCE, price index) will remain low in 2013, CBO projects. In addition, interest rates on Treasury securities are expected to be very low next year.

Whether lawmakers allow scheduled policy changes to take effect or alter them will play a crucial role in determining the path of the federal budget over the next decade and the outlook for the economy. To illustrate the consequences of possible changes to current law, CBO has produced projections under an alternative fiscal scenario that incorporates the following assumptions: that all expiring tax provisions are extended indefinitely (except the payroll tax reduction in effect in calendar years 2011 and 2012); that the AMT is indexed for inflation after 2011; that Medicare's payment rates for physicians' services are held constant at their current level; and that the automatic spending reductions required by the Budget Control Act, which are set to take effect in January 2013, do not occur (although the law's

original caps on discretionary appropriations are assumed to remain in place).

That set of alternative policies would lead to budgetary and economic outcomes that would differ significantly, both in the near term and in later years, from those in CBO's baseline. In 2013, the deficit would total \$1.0 trillion, almost \$400 billion (or 2.5 percent of GDP) more than the deficit projected to occur under current law. The economy would be stronger in 2013: Real GDP would grow by 1.7 percent between the fourth quarter of 2012 and the fourth quarter of 2013, and the unemployment rate would be about 8 percent by the end of 2013, CBO projects.

## The Budget Outlook for 2014 to 2022

In CBO's current-law baseline, budget deficits are projected to continue to shrink for several years—to 2.4 percent of GDP in 2014 and 0.4 percent by 2018—before rising again to 0.9 percent by 2022. With deficits small relative to the size of the economy, debt held by the

**Summary Table 2.****CBO's Economic Projections for Calendar Years 2012 to 2022**

	Forecast		Projected Annual Average	
	2012	2013	2014–2017	2018–2022
<b>Fourth Quarter to Fourth Quarter (Percentage change)</b>				
Real Gross Domestic Product	2.1	-0.5	4.3	2.4
Inflation				
PCE price index	1.4	1.4	1.8	2.0
Core PCE price index <sup>a</sup>	1.9	1.5	1.8	2.0
Consumer price index <sup>b</sup>	1.3	1.6	2.1	2.3
Core consumer price index <sup>a</sup>	2.1	1.7	2.0	2.2
<b>Fourth-Quarter Level (Percent)</b>				
Unemployment Rate	8.2	9.1	5.7 <sup>c</sup>	5.3 <sup>d</sup>
<b>Calendar Year Average (Percent)</b>				
Interest Rates				
Three-month Treasury bills	0.1	0.1	1.3	3.7
Ten-year Treasury notes	1.8	1.8	3.4	5.0

Source: Congressional Budget Office.

Notes: These economic projections reflect the assumption that the tax and spending provisions of current law remain in effect throughout the projection period. Economic projections for each year from 2012 to 2022 appear in Appendix B.

PCE = personal consumption expenditures.

- a. Excludes prices for food and energy.
- b. The consumer price index for all urban consumers.
- c. Value for 2017.
- d. Value for 2022.

public is also projected to drop relative to GDP—from about 77 percent in 2014 to about 58 percent in 2022. Even with that decline, however, debt would represent a larger share of GDP in 2022 than in any year between 1955 and 2009 (see Summary Figure 1).

Most of the projected decline in the deficit occurs because revenues are set to rise considerably in the coming years under current law—from 15.7 percent of GDP in 2012 to 19.6 percent in 2014 and 21.4 percent in 2022. Between 2012 and 2014 alone, revenues in CBO's baseline shoot up by one-quarter as a share of GDP because of the expiration of various tax cuts at the end of 2012, the expiration of provisions related to the AMT at the end of 2011 (which will boost tax receipts mainly in 2013 and later), and other factors.

Outlays, by contrast, are projected to be a smaller share of GDP in 2022 under current law (22.3 percent) than they are in 2012 (22.9 percent). Discretionary spending is

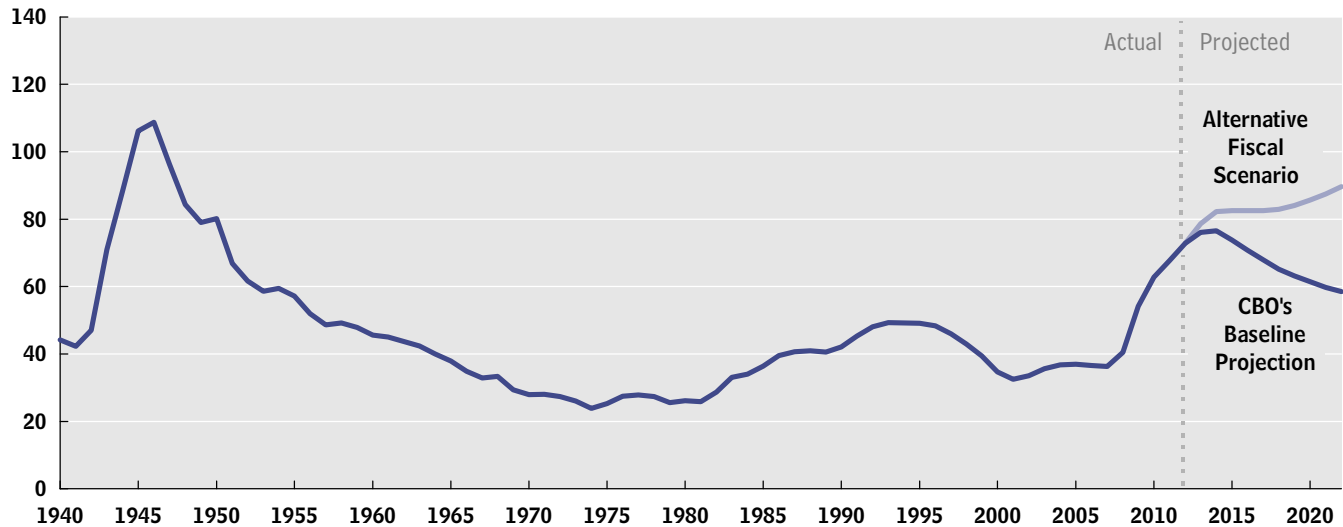
projected to decline relative to GDP throughout the next 10 years because of the caps on discretionary funding that stem from provisions of the Budget Control Act. By CBO's estimate, discretionary spending will fall to 5.6 percent of GDP by 2022—the lowest level in at least 50 years. Mandatory outlays will remain about the same as a share of GDP through 2019, CBO projects, because rising outlays for retirement and health care programs, relative to GDP, will be largely offset by lower spending for income security programs, such as unemployment benefits and certain refundable tax credits. In the last few years of the 10-year projection period, continued growth in spending for retirement and health care programs will cause mandatory outlays to grow faster than the economy, reaching 14.4 percent of GDP in 2022, compared with 13.2 percent in 2012.

Despite the surge in federal borrowing in recent years, net interest outlays are projected to hold steady at 1.4 percent of GDP through 2015, primarily because interest rates



**Summary Figure 1.****Federal Debt Held by the Public, Historically and As Projected in CBO's Baseline and Under an Alternative Fiscal Scenario**

(Percentage of gross domestic product)



Source: Congressional Budget Office.

Note: The alternative fiscal scenario incorporates the assumptions that all expiring tax provisions (other than the payroll tax reduction), including those that expired at the end of December 2011, are instead extended; that the alternative minimum tax is indexed for inflation after 2011 (starting at the 2011 exemption amount); that Medicare's payment rates for physicians' services are held constant at their current level; and that the automatic enforcement procedures specified by the Budget Control Act of 2011 do not take effect. The budgetary effects under the alternative fiscal scenario also include the incremental interest costs associated with projected additional borrowing.

are expected to remain near historic lows for the next few years. Interest rates are anticipated to rise noticeably thereafter, causing net interest outlays to increase to 2.3 percent of GDP by 2020, CBO projects.

Under the alternative fiscal scenario, deficits over the 2014–2022 period would be much higher than those projected in CBO's baseline, averaging about 5 percent of GDP rather than 1 percent. Revenues would remain below 19 percent of GDP throughout that period, and outlays would rise to more than 24 percent. Debt held by the public would climb to 90 percent of GDP by 2022—higher than at any time since shortly after World War II.

**The Economic Outlook for 2014 to 2022**

Under CBO's baseline, as the economy adjusts to a lower path for budget deficits, real GDP is projected to begin growing again in late 2013. The pace of economic expansion will average 4.3 percent from 2014 through

2017, CBO projects, although the economy will continue to operate below its potential level (when output reflects a high rate of use of labor and capital) until 2018. As economic growth picks up, the unemployment rate is projected to decline to 8.4 percent in the fourth quarter of 2014 and to 5.7 percent by the fourth quarter of 2017. Inflation (as measured by the PCE price index) is projected to inch up toward 2 percent by 2017. CBO anticipates that, as the economy strengthens, interest rates will return to more-typical levels; the rate on 3-month Treasury bills is projected to be 3.4 percent at the end of 2017, and the rate on 10-year Treasury notes is projected to be 4.6 percent.

Beyond 2017, CBO does not attempt to predict the timing or magnitude of fluctuations in business cycles. CBO's economic projections for the 2018–2022 period are based on trends in the factors that underlie the economy's potential output, such as the size of the labor force, the stock of productive capital, and productivity. In those projections, the growth of real GDP averages 2.4 percent

between 2018 and 2022, and inflation hovers around 2 percent. By late 2022, the unemployment rate declines to 5.3 percent, and interest rates on 3-month Treasury bills and 10-year Treasury notes are 3.8 percent and 5.0 percent, respectively.

Under the alternative fiscal scenario, real GDP would be higher in the first few years of the projection period than in CBO's baseline economic forecast, and the unemployment rate would be lower. However, the persistence of large budget deficits and rapidly escalating federal debt would hinder national saving and investment, thus

reducing GDP and income relative to the levels that would occur with smaller deficits. The economy would grow more slowly over the 2018–2022 period than in CBO's baseline, and interest rates would be higher.

Ultimately, the policies assumed in the alternative fiscal scenario would lead to a level of federal debt that would be unsustainable from both a budgetary and an economic perspective.<sup>2</sup>

- 
2. See Congressional Budget Office, *The 2012 Long-Term Budget Outlook* (June 2012).

# The Budget Outlook

**T**he Congressional Budget Office (CBO) estimates that the budget deficit in fiscal year 2012 will total \$1.1 trillion, or 7.3 percent of gross domestic product (GDP). Although this year will be the fourth in a row with a deficit exceeding \$1 trillion, the deficit this year will be about three-quarters the size it was three years ago when measured relative to the size of the economy. Debt held by the public will stand at 73 percent of GDP at the end of the year—about twice the 36 percent of GDP it measured at the end of 2007.

The future paths of federal deficits and debt are especially uncertain now because they will depend crucially on how lawmakers address looming tax and spending decisions. Under current law, the budget situation will change markedly next year because substantial changes to tax and spending policies are scheduled to take effect in January. CBO incorporates such changes in its baseline estimates of federal revenues and spending. Those estimates are intended to provide a benchmark against which potential policy changes can be measured; for that reason, they reflect the assumption that current laws generally remain unchanged.

Consequently, in CBO's baseline projections, budget deficits drop significantly as a share of GDP over the next few years (see Table 1-1). Under current law, CBO projects, the deficit will fall to 4.0 percent of GDP in 2013 and 2.4 percent in 2014; between 2015 and 2022, annual deficits will be around 1 percent of GDP or less. Deficits will total \$2.3 trillion between 2013 and 2022 under those current-law assumptions, but the economy will be growing faster than the debt, so debt held by the public will fall to 58 percent of GDP by the end of 2022.

The sharp drop in the deficit in 2013, which amounts to \$487 billion, will have significant short-term economic consequences. CBO expects that such fiscal tightening

would lead to what will probably be deemed a recession, with growth in GDP declining in 2013 and the unemployment rate staying above 8 percent through 2014.<sup>1</sup> (See Chapter 2 for more discussion of the economic impact of the fiscal tightening and the economic outlook more generally.)

Diverting from that path to continue current tax and spending policies would improve the economic outlook in the short run but would boost deficits and debt significantly and would place the budget on a path that is ultimately unsustainable. To illustrate those consequences, CBO produced projections under an alternative fiscal scenario. That scenario incorporates the assumptions that all expiring tax provisions (other than the payroll tax reduction in effect in calendar years 2011 and 2012) are extended; the alternative minimum tax (AMT) is indexed for inflation after 2011; Medicare's payment rates for physicians' services are held constant at their current level; and the automatic spending reductions required by the Budget Control Act of 2011 (Public Law 112-25), which are set to take effect in January 2013, do not occur (although the original caps on discretionary appropriations in that law are assumed to remain in place).

Under that alternative fiscal scenario, budgetary outcomes would differ sharply from those in CBO's baseline. Specifically, CBO projects that annual revenues would average about 18 percent of GDP from 2013 through 2022 rather than the almost 21 percent shown in the baseline projections, and outlays would average 23 percent of GDP rather than less than 22 percent as in

1. CBO's previous projection of the drop in the deficit between 2012 and 2013 was \$560 billion; the current estimate is smaller because of a downward revision to the estimated deficit for 2012 and an upward revision to the estimated deficit for 2013.

**Table 1-1.****CBO's Baseline Budget Projections**

	Actual, 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 2013- 2013- 2017 2022	
In Billions of Dollars														
Revenues														
Individual income taxes	1,091	1,123	1,425	1,543	1,719	1,886	2,069	2,234	2,387	2,542	2,704	2,870	8,642	21,379
Social insurance taxes	819	851	958	1,020	1,074	1,143	1,217	1,289	1,351	1,412	1,474	1,539	5,411	12,476
Corporate income taxes	181	235	298	363	440	482	491	488	475	473	478	489	2,074	4,477
Other	212	225	232	283	308	307	305	317	338	363	382	398	1,434	3,232
Total	2,303	2,435	2,913	3,208	3,541	3,817	4,083	4,328	4,551	4,790	5,039	5,295	17,562	41,565
On-budget	1,738	1,863	2,240	2,479	2,772	2,998	3,209	3,401	3,577	3,771	3,975	4,187	13,699	32,608
Off-budget <sup>a</sup>	566	572	673	729	768	819	874	927	974	1,019	1,064	1,108	3,863	8,957
Outlays														
Mandatory	2,027	2,053	2,105	2,174	2,311	2,499	2,617	2,738	2,926	3,104	3,296	3,555	11,705	27,324
Discretionary	1,346	1,289	1,231	1,194	1,199	1,220	1,236	1,253	1,286	1,316	1,346	1,384	6,079	12,664
Net interest	230	220	218	227	244	284	354	416	470	512	541	570	1,327	3,835
Total	3,603	3,563	3,554	3,595	3,754	4,003	4,206	4,407	4,681	4,932	5,183	5,509	19,111	43,823
On-budget	3,104	3,055	2,919	2,885	2,993	3,191	3,341	3,489	3,707	3,897	4,083	4,341	15,328	34,844
Off-budget <sup>a</sup>	499	507	635	710	761	812	865	919	974	1,035	1,099	1,168	3,783	8,979
Deficit (-) or Surplus	-1,300	-1,128	-641	-387	-213	-186	-123	-79	-130	-142	-144	-213	-1,549	-2,258
On-budget	-1,367	-1,192	-679	-405	-220	-193	-132	-88	-130	-126	-109	-154	-1,629	-2,236
Off-budget <sup>a</sup>	67	64	38	19	7	7	9	9	*	-16	-36	-59	80	-22
Debt Held by the Public	10,128	11,318	12,064	12,545	12,861	13,144	13,371	13,536	13,746	13,964	14,181	14,464	n.a.	n.a.
Memorandum:														
Gross Domestic Product	14,953	15,538	15,855	16,386	17,435	18,571	19,695	20,774	21,760	22,737	23,719	24,730	87,942	201,663
As a Percentage of Gross Domestic Product														
Revenues														
Individual income taxes	7.3	7.2	9.0	9.4	9.9	10.2	10.5	10.8	11.0	11.2	11.4	11.6	9.8	10.6
Social insurance taxes	5.5	5.5	6.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
Corporate income taxes	1.2	1.5	1.9	2.2	2.5	2.6	2.5	2.3	2.2	2.1	2.0	2.0	2.4	2.2
Other	1.4	1.5	1.5	1.7	1.8	1.7	1.6	1.5	1.6	1.6	1.6	1.6	1.6	1.6
Total	15.4	15.7	18.4	19.6	20.3	20.6	20.7	20.8	20.9	21.1	21.2	21.4	20.0	20.6
On-budget	11.6	12.0	14.1	15.1	15.9	16.1	16.3	16.4	16.4	16.6	16.8	16.9	15.6	16.2
Off-budget <sup>a</sup>	3.8	3.7	4.2	4.4	4.4	4.4	4.4	4.5	4.5	4.5	4.5	4.5	4.4	4.4
Outlays														
Mandatory	13.6	13.2	13.3	13.3	13.3	13.5	13.3	13.2	13.4	13.7	13.9	14.4	13.3	13.5
Discretionary	9.0	8.3	7.8	7.3	6.9	6.6	6.3	6.0	5.9	5.8	5.7	5.6	6.9	6.3
Net interest	1.5	1.4	1.4	1.4	1.4	1.5	1.8	2.0	2.2	2.3	2.3	2.3	1.5	1.9
Total	24.1	22.9	22.4	21.9	21.5	21.6	21.4	21.2	21.5	21.7	21.8	22.3	21.7	21.7
On-budget	20.8	19.7	18.4	17.6	17.2	17.2	17.0	16.8	17.0	17.1	17.2	17.6	17.4	17.3
Off-budget <sup>a</sup>	3.3	3.3	4.0	4.3	4.4	4.4	4.4	4.4	4.5	4.6	4.6	4.7	4.3	4.5
Deficit (-) or Surplus	-8.7	-7.3	-4.0	-2.4	-1.2	-1.0	-0.6	-0.4	-0.6	-0.6	-0.6	-0.9	-1.8	-1.1
On-budget	-9.1	-7.7	-4.3	-2.5	-1.3	-1.0	-0.7	-0.4	-0.6	-0.6	-0.5	-0.6	-1.9	-1.1
Off-budget <sup>a</sup>	0.4	0.4	0.2	**	**	**	**	**	**	-0.1	-0.1	-0.2	0.1	**
Debt Held by the Public	67.7	72.8	76.1	76.6	73.8	70.8	67.9	65.2	63.2	61.4	59.8	58.5	n.a.	n.a.

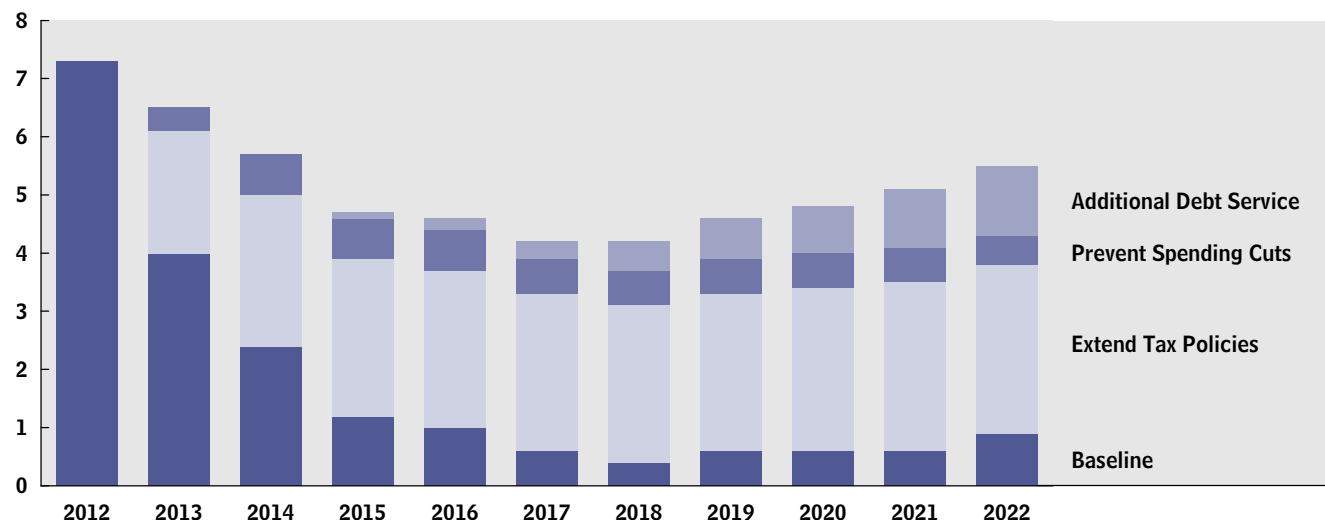
Source: Congressional Budget Office.

Note: \* = between -\$500 million and zero; n.a. = not applicable; \*\* = between -0.05 percent and 0.05 percent.

a. Off-budget surpluses or deficits comprise surpluses or deficits in the Social Security trust funds and the net cash flow of the Postal Service.

**Figure 1-1.****Deficits Projected in CBO's Baseline and Under an Alternative Fiscal Scenario**

(Percentage of gross domestic product)



Source: Congressional Budget Office.

Note: "Additional Debt Service" is the amount of interest payments on the additional debt issued to the public that would result from the policies in the alternative fiscal scenario. "Prevent Spending Cuts" involves holding Medicare's payment rates for physicians' services at their current level (rather than permitting them to drop, as scheduled under current law) and preventing the cuts to federal spending that will occur under the automatic enforcement procedures of the Budget Control Act of 2011 from taking effect (but leaving in place the original caps on discretionary appropriations in that legislation). "Extend Tax Policies" reflects the assumptions that expiring tax provisions (other than the payroll tax reduction) are instead extended and that the alternative minimum tax is indexed for inflation.

the baseline. As a result, deficits over the 2013–2022 period would average about 5 percent of GDP, compared with about 1 percent in the baseline (see Figure 1-1). With a cumulative deficit during that decade of nearly \$10 trillion under those alternative policies, debt held by the public would reach 90 percent of GDP by the end of 2022, higher than in any year since 1947; if those policies were maintained beyond 2022, federal debt would continue to grow much more rapidly than GDP. Although that alternative scenario would produce higher economic growth in 2013 and 2014 than is projected under CBO's baseline, it would reduce output and income in the longer run and is ultimately unsustainable.<sup>2</sup>

CBO's current baseline projections show smaller deficits than the agency estimated earlier this year.<sup>3</sup> The projected

deficit is \$44 billion less for 2012 and about \$600 billion less for the 2013–2022 period than CBO estimated in March. The 10-year reduction stems in roughly equal amounts from revisions in CBO's economic forecast, particularly from lower interest rates, and from technical changes to spending and revenue projections. (Changes to CBO's baseline projections since March are detailed in Appendix A.)

## The Budget Deficit, Revenues, and Outlays in 2012

In the absence of additional legislation that would affect spending or revenues this year, the deficit in 2012 will be about \$0.2 trillion lower than the \$1.3 trillion budget shortfall recorded in 2011, CBO estimates. The deficit will be smaller, CBO expects, because revenues will be higher (by almost 6 percent), while spending will decline (by about 1 percent). As a share of GDP, the 2012 deficit is projected to drop to 7.3 percent from last year's 8.7 percent.

2. The differences in economic outcomes resulting from the different policies under the alternative fiscal scenario would affect federal revenues and spending. Those feedback effects are not reflected in the projections for the alternative scenario presented here.

3. See Congressional Budget Office, *Updated Budget Projections, Fiscal Years 2012 to 2022* (March 2012).

## Revenues in 2012

On the basis of tax collections through July 2012, CBO expects federal revenues to total \$2.4 trillion this fiscal year, \$131 billion more than in fiscal year 2011. All of the major sources of tax revenues—individual income, corporate income, and social insurance—are expected to show increases. Although revenues from the corporate income tax are expected to show the largest gains this year (both in nominal dollars and in percentage terms), receipts from such taxes remain almost 40 percent below the amounts recorded before the recent recession. CBO estimates that federal revenues will equal 15.7 percent of GDP in fiscal year 2012, more than in any of the past three years (when revenues ranged between 15.1 percent and 15.4 percent of GDP) but well below the average ratio of about 18 percent of GDP for the past 40 years.

**Corporate Income Taxes.** Corporate income tax receipts will increase by about \$54 billion (or 30 percent) in 2012, CBO estimates. So far this year, the gains are divided almost equally between higher payments and lower refunds. The growth in corporate receipts appears to be attributable largely to changes in tax rules in recent years—in particular, the rules governing how quickly firms may deduct the cost of their investments in equipment.

**Individual Income Taxes.** Collections of individual income taxes are projected to increase by \$31 billion (or 3 percent) in 2012. Through July, net receipts from individual income taxes were about 4 percent higher than collections in the same period in 2011. Withheld individual income taxes, which are almost triple the amount of nonwithheld individual income taxes, had increased by 3 percent as a result of gains in wages and salaries; nonwithheld taxes, which include final payments made with 2011 tax returns and quarterly estimated payments, rose by 4 percent, mainly as a result of higher nonwage income.

**Social Insurance Taxes.** CBO expects receipts from payroll taxes that fund social insurance programs (such as Social Security and Medicare's Hospital Insurance program) to rise by \$32 billion (or 4 percent) in 2012. The current reduction of 2 percentage points in the Social Security tax rate on employees was not in effect during the first quarter of fiscal year 2011 (October through December 2010); if the tax rate had not changed, the year-over-year increase in payroll tax revenue would be about 7 percent. The increase in payroll taxes largely

reflects growth in wages and salaries and the Treasury's adjustments to the allocation of receipts for prior years between social insurance and individual income taxes.

## Outlays in 2012

Outlays are expected to drop by about \$40 billion this year, to a total of \$3.6 trillion. Spending is projected to equal 22.9 percent of GDP—a drop from last year's 24.1 percent but still well above the annual average of 21 percent of GDP over the past 40 years. Mandatory spending is projected to rise slightly in nominal terms but to fall as a share of GDP—from 13.6 percent last year to 13.2 percent this year. Discretionary spending is expected to decline in nominal terms and to drop by 0.7 percent of GDP to 8.3 percent in 2012. At 1.4 percent of GDP, outlays for net interest will be just below last year's level of 1.5 percent.

**Mandatory Spending.** Outlays for mandatory programs (which are governed by statutory criteria and are not normally controlled by the annual appropriation process) are projected to rise by \$26 billion, or about 1 percent, this year to \$2.1 trillion (see Table 1-2). CBO estimates that, compared with spending in 2011, outlays will be higher this year for the Troubled Asset Relief Program (TARP), Social Security, deposit insurance, and higher education. Those increases will be partially offset by lower spending for other mandatory programs, including unemployment compensation, the refundable portion of the Making Work Pay tax credit (which expired at the end of calendar year 2010), and the major health care programs.<sup>4</sup>

By law, the cost of investments made through the TARP is estimated as the present value of anticipated net outlays, calculated using a discount rate that adjusts for market risk.<sup>5</sup> The Administration's original estimate of net outlays for the TARP is adjusted annually to take into account an updated valuation of the cash flows associated with the program. Last year, the Treasury recorded negative net outlays (-\$37 billion) for the TARP, mostly because the costs recorded for the program in earlier years appeared too high; however, in 2012, declines in the

4. A refundable tax credit reduces a filer's tax liability; if the credit exceeds the liability, the excess may be refunded. Such refunds are reflected as federal outlays in the budget.

5. Present value is a single number that expresses a flow of current and future income, or payments, in terms of an equivalent lump sum received or paid today. For more information on the TARP, see Congressional Budget Office, *Report on the Troubled Asset Relief Program—March 2012*.

market value of recipients of assistance from the TARP, such as General Motors and American International Group, have led the Administration to boost its estimate of the program's cost by \$21 billion. With 2012 spending of about \$3 billion, primarily for mortgage programs, the TARP's outlays are projected to total \$24 billion this year—a \$62 billion swing from the negative net outlays recorded last year.<sup>6</sup>

Outlays for Social Security benefits will jump by \$43 billion—or nearly 6 percent—this year. That increase includes the effect of the 3.6 percent cost-of-living adjustment that beneficiaries received in January. In addition, the number of Social Security beneficiaries has risen by an estimated 2.5 percent, to 56 million people, in 2012.

CBO estimates that outlays for deposit insurance and higher education also will be greater in 2012 than they were in 2011, when both programs recorded negative outlays. Net outlays for deposit insurance were negative \$9 billion last year, reflecting receipts from repayments of loans that the federal government made to stabilize the corporate credit union system. CBO anticipates that net outlays for deposit insurance will amount to a positive \$7 billion this year, as spending to resolve failed institutions will exceed receipts from premiums paid by financial institutions. Mandatory outlays for higher education include subsidies for student loans made in the current year, revisions to the subsidy costs of loans made in previous years, and mandatory spending for the Federal Pell Grant Program. Together, those transactions produced net negative outlays of \$31 billion in 2011; they are expected to rise by \$13 billion this year, to negative \$18 billion.<sup>7</sup>

Overall, outlays for programs in the income security category are expected to tumble by \$48 billion (or nearly 12 percent) this year. The largest decrease is for

unemployment compensation: A lower unemployment rate is anticipated to drive down costs by \$25 billion—or more than 20 percent—from last year's levels. In addition, the expiration of the Making Work Pay tax credit reduced outlays for the refundable portion of that credit by \$18 billion. In contrast, spending for some income security programs, such as the Supplemental Nutrition Assistance Program and child nutrition, will rise this year—by 4 percent and 5 percent, respectively.

Federal spending for mandatory health care programs will fall by \$27 billion—or about 3 percent—this year, CBO estimates. A \$22 billion reduction in federal spending for Medicaid is primarily responsible for that drop, largely because states became responsible for a greater share of Medicaid expenses this year than had been the case in recent years. (The federal government's share of those costs had been temporarily boosted from 2009 through 2011.) Spending for Medicare in 2012 is also anticipated to be lower than it was last year, by about \$9 billion.<sup>8</sup> However, most of that reduction is the result of \$15 billion in payments being made in fiscal year 2011 rather than in 2012 because the first day of fiscal year 2012 (October 1, 2011) fell on a weekend; without that shift in the timing of payments, Medicare outlays would be up by nearly 4 percent this year.

**Discretionary Spending.** CBO anticipates that outlays from annual appropriations will total \$1.3 trillion in 2012, which is \$57 billion (or 4 percent) less than they were last year. That decline stems mostly from the waning of spending from funds provided in the American Recovery and Reinvestment Act of 2009 (ARRA, P.L. 111-5) and the reduction in spending for war-related activities in Afghanistan and Iraq. (The last U.S. troops left Iraq in December 2011.)

Nondefense discretionary outlays are estimated to fall by nearly \$27 billion (or 4 percent) this year, to \$620 billion; that drop follows a decrease of 2 percent in 2011. On net, most of that drop in 2012 stems from reduced spending from ARRA funding.

Defense outlays are expected to decrease by \$30 billion (or 4 percent) in 2012, to \$669 billion—the first decline since 1998. In contrast, such outlays grew by 1.5 percent in 2011 and by an average of 9 percent annually from

6. Since the TARP was enacted in 2008, CBO estimates the net costs to be recorded in the budget through 2012 will amount to \$29 billion. CBO currently expects that the budgetary cost of the TARP will ultimately total \$31 billion.

7. Calculations of subsidy costs for federal student loans follow the loan-valuation procedures specified in the Federal Credit Reform Act of 1990. Under that law, the discounted present value of expected income from newly issued federal student loans is projected to exceed the discounted present value of the government's costs; that calculation yields a negative subsidy rate, resulting in negative outlays. In each subsequent year, the original subsidy estimate may be increased or decreased on the basis of updated information.

8. That difference is for gross outlays for Medicare, which do not include the offsetting effects of premium payments and other offsetting receipts.

**Table 1-2.****Mandatory Outlays Projected in CBO's Baseline**

(Billions of dollars)

	Actual,												Total	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013- 2017	2013- 2022
Social Security														
Old-Age and Survivors Insurance	596	632	666	704	745	789	840	894	952	1,014	1,077	1,144	3,744	8,826
Disability Insurance	129	136	143	149	155	161	167	174	180	187	197	206	776	1,720
Subtotal	725	768	809	853	900	951	1,007	1,067	1,132	1,202	1,274	1,350	4,520	10,545
Health Care Programs														
Medicare <sup>a</sup>	560	550	581	605	636	693	720	752	827	889	956	1,064	3,234	7,722
Medicaid	275	253	267	305	341	382	416	446	479	514	549	592	1,711	4,291
Health insurance subsidies, exchanges, and related spending	*	*	1	24	46	75	91	101	107	111	118	123	236	795
MERHCF	9	9	9	10	11	11	12	13	14	14	15	16	53	125
Children's Health Insurance Program	9	9	9	13	15	8	6	6	6	6	6	6	51	80
Other	4	7	8	13	24	23	28	27	30	32	35	37	96	256
Subtotal	856	828	877	969	1,072	1,192	1,272	1,345	1,462	1,566	1,679	1,837	5,381	13,269
Income Security														
Supplemental Nutrition Assistance Program	77	80	81	77	77	77	75	74	73	72	71	70	388	747
Supplemental Security Income	53	47	53	55	56	63	59	55	62	64	66	73	285	605
Unemployment compensation	119	94	60	58	53	51	48	49	51	54	57	59	271	541
Earned income and child tax credits	78	77	80	47	47	46	46	45	45	46	47	47	266	496
Family support <sup>b</sup>	26	24	25	25	25	25	25	25	25	25	25	25	125	250
Child nutrition	18	19	21	22	23	24	24	25	26	27	28	30	113	250
Foster care	7	7	7	7	7	8	8	8	9	9	9	10	37	82
Making Work Pay and other tax credits <sup>c</sup>	25	7	6	*	0	0	0	0	0	0	0	0	6	6
Subtotal	404	357	333	291	288	292	286	282	291	297	303	314	1,490	2,976
Federal Civilian and Military Retirement														
Civilian <sup>d</sup>	83	87	89	92	95	98	101	105	108	112	115	119	474	1,033
Military	55	49	54	56	57	63	61	58	64	66	68	76	291	623
Other	6	8	7	7	6	7	8	8	9	10	11	11	35	85
Subtotal	144	143	150	154	158	168	169	171	182	188	195	206	799	1,740
Veterans <sup>e</sup>														
Income security	59	55	60	61	63	69	66	62	68	70	71	78	319	669
Other	12	13	13	13	13	14	14	15	16	17	18	19	68	152
Subtotal	71	69	74	74	76	83	80	77	85	87	89	97	386	821
Other Programs														
Agriculture	15	16	22	15	16	16	16	16	16	16	17	17	86	168
Troubled Asset Relief Program	-37	24	-5	3	2	1	1	*	*	*	*	0	2	2
Higher education	-31	-18	-26	-28	-26	-19	-10	-3	*	*	-1	-1	-109	-114
Deposit insurance	-9	7	7	-7	-8	-11	-12	-12	-18	-18	-11	-12	-30	-102
Other	82	62	67	60	57	58	57	58	58	57	58	69	299	599
Subtotal	20	91	65	44	40	46	51	59	56	56	63	73	248	554

Continued



Table 1-2.

Continued

**Mandatory Outlays Projected in CBO's Baseline**

(Billions of dollars)

	Actual,												Total	
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-2017	2013-2022
Offsetting Receipts														
Medicare <sup>f</sup>	-80	-84	-87	-91	-96	-104	-112	-121	-131	-139	-151	-165	-489	-1,195
Federal share of federal employees' retirement														
Social Security	-15	-16	-16	-16	-17	-17	-18	-19	-19	-20	-21	-21	-85	-185
Military retirement	-21	-22	-21	-21	-21	-22	-22	-23	-24	-26	-27	-28	-106	-234
Civil service retirement and other	-28	-29	-30	-30	-31	-32	-34	-35	-36	-38	-39	-41	-156	-346
Subtotal	-63	-67	-66	-67	-69	-71	-74	-77	-80	-84	-87	-90	-347	-765
Receipts related to natural resources	-13	-14	-13	-13	-14	-15	-15	-16	-20	-18	-18	-18	-71	-161
MERHCF	-11	-11	-9	-9	-9	-10	-10	-11	-12	-12	-13	-14	-47	-108
Other	-26	-27	-27	-32	-35	-34	-38	-38	-38	-38	-39	-35	-167	-354
Subtotal	-193	-203	-203	-212	-224	-234	-248	-263	-281	-290	-307	-322	-1,120	-2,583
Total	2,027	2,053	2,105	2,174	2,311	2,499	2,617	2,738	2,926	3,104	3,296	3,555	11,705	27,324
Memorandum:														
Mandatory Spending Excluding														
Offsetting Receipts	2,220	2,256	2,308	2,386	2,534	2,732	2,865	3,001	3,207	3,394	3,603	3,876	12,825	29,906
Medicare Spending Net of														
Offsetting Receipts	480	466	494	514	539	589	608	632	696	750	806	899	2,745	6,527

Source: Congressional Budget Office.

Notes: Data on spending for benefit programs in this table generally exclude administrative costs, which are discretionary.

MERHCF = Department of Defense Medicare-Eligible Retiree Health Care Fund (including TRICARE for Life);

\* = between -\$500 million and \$500 million.

- Excludes offsetting receipts from premium payments and from payments by states from savings on Medicaid prescription drug costs.
- Includes Temporary Assistance for Needy Families and various programs that involve payments to states for child support enforcement and family support, child care entitlements, and research to benefit children.
- Includes outlays for the first-time homebuyer credit, the American Opportunity Tax Credit, and other tax credits.
- Includes Civil Service, Foreign Service, Coast Guard, and other, smaller retirement programs as well as annuitants' health care benefits.
- Income security includes veterans' compensation, pensions, and life insurance programs. Other benefits are primarily education subsidies.
- Includes Medicare premiums and amounts paid by states from savings on Medicaid prescription drug costs.

2000 through 2010. The majority of the reduction in outlays for defense is related to spending for military operations in Afghanistan and Iraq, which CBO estimates will total \$135 billion in 2012, roughly \$20 billion less than was spent for such purposes last year.<sup>9</sup>

**Net Interest.** Outlays for the budget category "net interest," which consists of the government's interest payments on debt held by the public minus interest income the government receives, will drop to

\$220 billion this year from \$230 billion last year, CBO estimates. Much of that dip results from a continued decline in interest rates.

- In addition, spending for diplomatic operations and foreign aid specifically related to those activities will amount to roughly \$5 billion in 2012. For more details about funding for operations in Afghanistan and Iraq and related activities, see Congressional Budget Office, *Budget and Economic Outlook: Fiscal Years 2012 to 2022* (January 2012), Box 3-2, pp. 70-71.

## CBO's Baseline Budget Projections for 2013 to 2022

Under the assumption that fiscal policy unfolds as specified by current law, CBO projects that the budget deficit will continue to shrink—to 4.0 percent of GDP next year and 2.4 percent in 2014. Between 2015 and 2022, annual deficits would fluctuate in a narrow range between 0.4 percent and 1.2 percent of GDP.

Most of the drop in the baseline deficit in the next two years is projected to come from a sharp increase in revenues, which are estimated to increase by one-third between 2012 and 2014 as a result of several factors, including the following: the scheduled expiration in 2012 of a number of tax provisions, the expiration at the end of 2011 of provisions related to the AMT, stronger growth in the economy after 2013, and rising average tax rates on corporate profits. As a result, under current law, revenues will reach 19.6 percent of GDP in 2014, compared with 15.7 percent in 2012, CBO estimates. Revenues are projected to continue to rise relative to GDP—but more slowly—after 2014, reaching 21.4 percent in 2022. Over the 2013–2022 period, revenues in CBO's baseline projections average 20.6 percent of GDP.

Despite the pressures generated by an aging population and rising health care costs, outlays will be roughly stable as a share of GDP over the next decade under current law, CBO estimates. Outlays will range between 21.2 percent and 22.4 percent of GDP, first declining between 2012 and 2018 and then trending upward. That projection incorporates a reduction of about \$1 trillion in outlays over the next 10 years stemming from the automatic enforcement procedures stipulated by the Budget Control Act (see Box 1-1). Other factors that temper the growth in spending include the continued decline in outlays for unemployment compensation and for other benefits that increased during the recession and the continuing ebb of spending under ARRA.

Even if deficits shrink over the next few years (as CBO projects they will under current law), debt held by the public will increase as a share of GDP from 73 percent in 2012 to 77 percent in 2014, CBO projects. That debt will fall relative to GDP in subsequent years as economic growth picks up—ending the projection period at 58 percent of GDP, still high by historical standards.<sup>10</sup>

If the various provisions of current law are modified or if economic growth differs from what CBO projects, however, budgetary outcomes could be quite different. (Some possible alternative outcomes are discussed later in this chapter.)

### Revenues in the 2013–2022 Period

Much of the increase in revenues projected through 2014 is attributable to the expiration of tax provisions enacted since 2001 and, to a lesser extent, to other scheduled changes in tax rules. In addition, certain structural features of the individual income tax will cause receipts to rise gradually relative to income over the next 10 years. Factors related to the economic recovery (such as anticipated rebounds in wages and salaries and in realizations of capital gains that are expected to outstrip projected growth in GDP) are estimated to increase revenues further relative to GDP. Together, all of those forces push federal revenues in CBO's baseline from 15.7 percent of GDP in 2012 to 21.4 percent by 2022—well above their 40-year average of about 18 percent of GDP.

**Individual Income Taxes.** CBO projects that, under current law, individual income tax receipts will rise from \$1.1 trillion this year to about \$2.9 trillion in 2022—or from 7.2 percent to 11.6 percent of GDP. That projected increase in receipts reflects the scheduled changes in tax law, the features of the existing tax system that cause revenues to rise faster than income over time, an expected rebound in taxable income, and some other effects of the economic recovery.

*Scheduled Changes in Tax Law.* Certain tax provisions that were initially enacted in 2001, 2003, or 2009 are scheduled to expire at the end of December 2012, returning many aspects of the current income tax to rules that were in effect more than a decade ago. Those expiring provisions include lower tax rates on ordinary income and income from capital gains and dividends, wider tax brackets (and thus lower taxes) for married couples, and expanded tax credits. In addition, higher exemption amounts that have mitigated the impact of the AMT since 2001 expired at the end of December 2011. CBO projects that, in the absence of new legislation, the resulting increase in tax liabilities stemming from the AMT in 2012 will be paid almost entirely in 2013, pushing up receipts that year; also, greater tax liabilities stemming from both the AMT and the expiration of the earlier tax cuts will raise receipts throughout the coming decade. Together, those scheduled changes in tax law will boost

10. For recent projections that extend beyond 2022, see Congressional Budget Office, *The 2012 Long-Term Budget Outlook* (June 2012).

income tax receipts as a share of GDP by roughly 1.7 percentage points between now and 2022, CBO projects.

*Features of the Existing Tax System.* Even if statutory tax rates and tax credits remained unchanged, various features of the individual income tax would cause average tax rates to rise over time, increasing revenues as a share of GDP by an estimated 1.7 percentage points over the next decade. Those features include real bracket creep, in which increases in real (inflation-adjusted) income push more income into higher tax brackets; application of the AMT to a growing share of income as nominal income rises; and rapid growth in taxable distributions from tax-deferred retirement accounts (such as individual retirement accounts and 401(k) plans) as the population ages.

*Economic Recovery.* Other factors, largely related to the projected economic recovery, are expected to raise revenues as a share of GDP by about 1.0 percentage point between now and 2022. Certain components of taxable income—including wages and salaries, interest, capital gains distributions, and proprietors' income—fell relative to GDP over the past several years. CBO expects that, as the economy recovers, such income will rebound more quickly than the economy as a whole, increasing revenues relative to GDP.

**Social Insurance Taxes.** Receipts from social insurance taxes are projected to grow from 5.5 percent of GDP this year to 6.2 percent in 2014 and to remain at about that level thereafter. The principal contributor to growth in social insurance taxes is the expiration of the payroll tax cut that has been in effect for calendar years 2011 and 2012. Employees' share of the payroll tax was reduced by 2 percentage points (from 6.2 percent of wages to 4.2 percent) for those years, reducing receipts in fiscal years 2011 through 2013; the expiration of that tax cut will boost receipts as a share of GDP by 0.7 percentage points between 2012 and 2014.

**Corporate Income Taxes.** Receipts from corporate income taxes are projected to rise sharply over the next several years—climbing from 1.5 percent of GDP this year to 2.6 percent in 2016—before reverting to their historical average of 2.0 percent of GDP by 2022.

The average tax rate on domestic economic profits has been low by historical standards for the past several years. Temporary changes to the tax code, including provisions allowing businesses to deduct purchases of equipment

from their taxable income more rapidly than typical rules allow, have contributed to that low tax rate.<sup>11</sup> The expiration of those and certain other tax provisions is expected to raise corporate income tax receipts as a share of GDP by about 0.3 percentage points by 2016. Other factors contributing to the low average tax rate on domestic economic profits will not be fully known until tax return data become available, sometime in the next year or two. CBO expects that those other factors will gradually disappear, increasing projected revenues relative to GDP by about 1.0 percentage point, all between 2012 and 2016. That increase will be partially offset, CBO estimates, by a slight decline in domestic economic profits relative to the economy, which will reduce corporate receipts as a share of GDP by 0.2 percentage points over the 2013–2016 period.

Between 2016 and 2022, corporate income tax receipts are projected to decline by 0.6 percentage points as a share of the economy, reducing corporate receipts to 2.0 percent of GDP in 2022—the annual average of the past 40 years. The major reason for that decline is the expected drop in profits relative to GDP as higher interest rates increase U.S. businesses' interest payments and as labor income rises as a percentage of GDP.

**Receipts from Other Sources.** The federal government also collects revenues from excise taxes, estate and gift taxes, earnings of the Federal Reserve System, customs duties, and other miscellaneous levies. CBO projects that revenues from those sources will rise slightly, from 1.5 percent of GDP this year to 1.6 percent in 2022. Declining receipts from the Federal Reserve, CBO estimates, will be more than offset over the period by rising receipts from the other sources.

### Outlays in the 2013–2022 Period

In CBO's baseline projections, federal outlays total \$3.6 trillion in 2013, \$9 billion less than the amount of spending anticipated for this year. CBO projects that outlays will decline relative to GDP from about 23 percent this year to around 21 percent in 2018, before rising

11. Under current law, companies can expense (fully deduct from taxable income) all qualified investments in equipment made in late 2010 and throughout 2011, rather than spreading those deductions over several years, as was previously required. In 2012, businesses can expense half of their investments in equipment; after that, deductions must be spread out over a longer period. Current law, however, will continue to permit businesses with relatively small investments in equipment to fully deduct those costs in the year in which the equipment is placed in service.

**Box 1-1.****Automatic Enforcement Procedures Under the Budget Control Act**

The Budget Control Act of 2011 (Public Law 112-25) specified automatic procedures to reduce both discretionary and mandatory spending during the coming decade. Those automatic reductions will take the form of equal cuts (in dollar terms) in funding for defense and nondefense programs in fiscal years 2013 through 2021. For 2013, those reductions will be achieved by automatically canceling a portion of the budgetary resources (in an action known as sequestration) for most discretionary programs as well as for some programs and activities that are financed by mandatory spending.<sup>1</sup> From 2014 to 2021, the reductions will be achieved by lowering the caps on discretionary budget authority as specified in the Budget Control Act and through sequestration for mandatory spending. The law exempts a significant portion of mandatory spending from sequestration, however.

The Congressional Budget Office (CBO) has estimated how much discretionary and mandatory funding will change under the automatic enforcement mechanisms (see the table). CBO's analysis can only approximate the results, however; the Administration's Office of Management and Budget is responsible for implementing reductions on the basis of its own estimates.

Under current law, the automatic enforcement procedures will reduce budgetary resources for defense programs by \$492 billion over the 2013–2021 period. Annual reductions will be divided proportionally between mandatory and discretionary defense spending. Because mandatory spending makes up less than 1 percent of all defense spending, CBO estimates that only about \$150 million will be sequestered from such programs over the period. Consequently, almost all of the required deficit reduction in the defense category will be achieved by sequestering discretionary resources in 2013 and by lowering the caps on defense appropriations for 2014 through 2021. By CBO's estimate, the automatic enforcement procedures will reduce discretionary defense resources by about 10 percent in

2013 and reduce the caps on defense appropriations by lesser amounts thereafter, declining to 8.5 percent in 2021.

Estimating the automatic reductions for nondefense programs is more complicated, particularly because of provisions in the Budget Control Act that limit spending cuts in most Medicare benefits to 2 percent and that exempt many mandatory programs (including Social Security and Medicaid) from sequestration altogether. For Medicare, CBO estimates that nearly 90 percent of the program's spending will be subject to the 2 percent limit and about 10 percent of such spending will be exempt from sequestration entirely, leaving just 1 percent of Medicare spending subject to the same sequestration as nonexempt mandatory programs.

The act requires the same total reductions—\$492 billion over the 2013–2021 period—in the budgetary resources for defense and nondefense activities. In calculating the reductions required in nondefense spending, the targeted savings will first be allocated proportionally between nonexempt discretionary and mandatory programs. CBO estimates that mandatory spending will account for roughly 58 percent of all nondefense spending that is subject to enforcement procedures under the Budget Control Act during those nine years. Of that spending, the vast majority is for Medicare programs and activities that will be subject to the 2 percent limit. In the absence of such a limit, reductions in budgetary resources for Medicare would total \$257 billion between 2013 and 2021, CBO estimates; with the 2 percent ceiling, however, those reductions will total \$123 billion over the period.<sup>2</sup> The

1. Budgetary resources consist of all sources of authority provided to federal agencies that permit them to incur financial obligations, including new budget authority, unobligated balances, direct spending authority, and obligation limitations.

2. According to the sequestration rules, the Medicare reductions would begin each February (rather than in January, as for other programs) and continue for 12 months (rather than to the end of fiscal year 2021, as CBO assumes for other programs). CBO estimates that sequestration in 2021 will reduce Medicare funding by nearly \$8 billion in 2022. Because the sequestration will reduce Medicare's spending, premiums for Part B (Medical Insurance) will be lower. Moreover, Medicare's prices for competitively bid services will probably be higher. Such offsetting costs will total \$36 billion between 2013 and 2022, CBO estimates.

Continued

**Box 1-1.****Continued****Automatic Enforcement Procedures Under the Budget Control Act****Automatic Enforcement Procedures**

(Billions of dollars of budgetary resources)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total, 2013- 2021
<b>Defense</b>										
Sequestration of mandatory programs	*	*	*	*	*	*	*	*	*	*
Reduction in the cap on discretionary budget authority <sup>a</sup>	-55	-55	-55	-55	-55	-55	-55	-55	-55	-492
<b>Total</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-492</b>
<b>Nondefense</b>										
Sequestration of mandatory programs										
Medicare spending subject to 2 percent limit	-11	-11	-12	-13	-13	-14	-15	-16	-18	-123
Other nonexempt programs	-3	-3	-3	-3	-3	-3	-3	-3	-3	-29
Additional sequestration applied to other programs because of the 2 percent limit for Medicare <sup>b</sup>	-2	-2	-2	-2	-2	-2	-2	-2	-2	-16
Subtotal	-16	-16	-17	-18	-18	-19	-20	-22	-23	-169
Reduction in the cap on discretionary budget authority <sup>a</sup>										
Preliminary reductions	-25	-25	-24	-23	-23	-23	-22	-21	-20	-206
Further reductions because of the 2 percent limit for Medicare <sup>b</sup>	-14	-14	-14	-13	-13	-13	-13	-12	-12	-117
<b>Total</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-55</b>	<b>-492</b>

Source: Congressional Budget Office.

Notes: Budget authority refers to the authority provided by law to incur financial obligations, which eventually result in outlays. For Medicare, the cut in budgetary resources for each year would result in reductions of budget authority and outlays over a 12-month period spanning parts of two fiscal years (from February through January).

In this table, "defense" refers to all accounts in budget function 050, and "nondefense" refers to all other budget accounts.

\* = between -\$500 million and zero.

- For 2013, reductions in budget authority would take place via sequestration rather than through a reduction in the caps.
- Because a portion of Medicare spending cannot be subject to a sequestration of more than 2 percent, the remaining amount of required reductions must be reallocated proportionally among other nonexempt mandatory programs and nondefense discretionary funding.

other \$134 billion in required reductions that is not achievable because of the 2 percent limit will be reallocated proportionally among the remaining nonexempt mandatory programs and discretionary programs in the nondefense category. By CBO's estimate, the automatic enforcement will reduce nonexempt nondefense funding (excluding Medicare) by about 8 percent in 2013 and by declining percentages thereafter, falling to a low of 5.4 percent in 2021.

Most savings from the automatic reductions will stem from cuts in discretionary programs beyond those resulting from the act's original caps. CBO expects that 83 percent of the savings from the automatic procedures will come from lower caps on discretionary appropriations (and from sequestration of appropriations in 2013) and that 17 percent will come from a net reduction in mandatory spending—with nearly two-thirds of that reduction coming from Medicare spending.

again to more than 22 percent in 2022. (The average for the past 40 years has been 21 percent.)

As specified in the Balanced Budget and Emergency Deficit Control Act of 1985, CBO's projections for most mandatory programs are made under the assumption that current laws continue unchanged.<sup>12</sup> Thus, CBO's baseline projections for such programs reflect the automatic enforcement procedures of the Budget Control Act and expected changes in the economy, demographics, and other factors that affect the budgetary consequences of the laws governing those programs. For discretionary spending, CBO's baseline incorporates the caps put in place by the Budget Control Act and the reductions in those caps that are scheduled to occur under the act's automatic enforcement procedures.

Under those assumptions, mandatory spending and net interest together will be higher in 2022—by 2.0 percentage points of GDP—than they are estimated to be in 2012. In contrast, discretionary spending is projected to decline by 2.7 percent of GDP from 2012 through 2022.

**Mandatory Spending.** Mandatory outlays will remain about the same as a share of GDP—around 13.3 percent—through 2019. For the next several years, CBO projects, rising outlays for retirement and health care programs will be largely offset by lower spending for income security programs, such as unemployment compensation and refundable tax credits. In the last few years of the projection period, continued growth in spending for health care and retirement programs will cause mandatory outlays to increase faster than the economy, reaching 14.4 percent of GDP in 2022.

The bulk of the government's mandatory spending comprises outlays for Social Security and health care programs. Outlays for the three largest programs—Social Security, Medicare, and Medicaid—are projected to grow from 10.5 percent of GDP in 2013 to 12.2 percent in 2022, accounting for about 55 percent of all federal spending by the end of that period.

12. The Balanced Budget Act specifies some exceptions. For example, spending programs whose authorizations are set to expire are assumed to continue if they have outlays of more than \$50 million in the current year and were established at the time of or before enactment of the Balanced Budget Act of 1997. Programs established after that law was enacted are not automatically assumed to continue but are considered individually in consultation with the House and Senate budget committees.

- Outlays for Social Security, which are estimated to account for almost a quarter of the government's spending next year, are projected to grow from 5.1 percent of GDP in 2013 to 5.5 percent in 2022 as more people become eligible for the program.
- Outlays for Medicare (excluding receipts from premiums and other sources) will total 3.7 percent of GDP in 2013 but will reach 4.3 percent of GDP in 2022, CBO estimates, as enrollment increases.<sup>13</sup>
- Federal outlays for Medicaid will rise to 1.7 percent of GDP next year and to 2.4 percent of GDP in 2022, CBO projects, as states expand coverage under provisions of the Affordable Care Act.<sup>14</sup>

Another factor contributing to the anticipated growth in mandatory spending is the provision of subsidies for the purchase of health insurance, which will become available under the Affordable Care Act starting in 2014 for individuals and families who meet income and other eligibility criteria.<sup>15</sup> In total, outlays for those subsidies will reach \$123 billion (or 0.5 percent of GDP) in 2022, CBO estimates.<sup>16</sup>

In contrast, as the economy and the labor market gradually improve and emergency unemployment benefits expire, spending for unemployment compensation will decline from \$60 billion in 2013 to \$48 billion in 2017,

13. Spending in 2022 will be boosted by a shift in the timing of certain Medicare payments that will occur because October 1, 2022, falls on a weekend. That shift will increase mandatory outlays in 2022 and decrease such outlays in 2023 by 0.1 percent of GDP.

14. The Affordable Care Act comprises the Patient Protection and Affordable Care Act (P.L. 111-148) and the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152). CBO's updated projections for Medicaid spending are consistent with the Supreme Court's recent decision about the Affordable Care Act. For more information, see Congressional Budget Office, *Estimates for the Insurance Coverage Provisions of the Affordable Care Act Updated for the Recent Supreme Court Decision* (July 2012).

15. Those subsidies are structured as refundable tax credits; the portions of such credits that exceed taxpayers' liabilities will be classified as outlays, and the portions that reduce tax payments will appear in the budget as reductions in revenues.

16. Including the portions of the subsidies that will be recorded in the budget as reductions in revenues, the total federal cost of the exchange subsidies and related spending will be \$155 billion (or 0.6 percent of GDP) in 2022.



CBO estimates. (Spending for that program peaked at \$159 billion in 2010.) Outlays are expected to increase in the remaining years of the projection period, in step with projected growth in wages and the labor force. By 2022, CBO estimates, outlays for unemployment benefits will rise again to \$59 billion.

Outlays for the earned income and child tax credits are projected to decline markedly, from \$80 billion in 2013 to \$47 billion in 2014, for two reasons: First, under current law, the maximum amount of the child tax credit will be reduced from \$1,000 to \$500 and the refundability of the credit will be sharply limited. Second, the expiration of various tax provisions at the end of December 2012 will boost the tax liability for many filers (which means that more of the impact of the earned income and child tax credits will be reflected as a reduction in revenues rather than as an increase in outlays). After 2014, annual outlays for the two credits will remain near \$46 billion, CBO estimates.

**Discretionary Spending.** In CBO's baseline projections, most appropriations for the 2013–2021 period are assumed to be constrained by the caps and automatic enforcement procedures put in place by the Budget Control Act; for 2022, CBO projects discretionary funding under the assumption that it will grow from the 2021 amount at the rate of inflation. Funding for certain purposes, such as war-related costs, is not constrained by the caps established in the Budget Control Act.<sup>17</sup> The components of CBO's projections of discretionary spending can be seen in Table 1-3, which shows what discretionary spending would be if appropriations grew at the rate of inflation and how those amounts are affected by the imposition of the caps and by the automatic enforcement procedures that will reduce those caps.

Under the assumption that appropriations for 2013 are at the maximum amounts allowed under the Budget Control Act, discretionary budget authority will fall by \$104 billion (or 9 percent) in that year, from \$1,198 billion this year to \$1,093 billion in 2013. Thereafter, the resulting caps will limit growth in budget authority for most discretionary programs (excluding funding for wars,

certain program integrity initiatives, and disaster relief) to about 2 percent per year—an average of \$25 billion annually. Consequently, discretionary outlays are projected to grow much more slowly than the economy. If that occurs, discretionary outlays will fall to 5.6 percent of GDP by 2022, nearly 3 percentage points below the share estimated for this year and a smaller share than in any of the past 50 years (which is the longest span for which comparable data have been reported). If the automatic spending reductions under the Budget Control Act were eliminated but the original caps on discretionary funding in that law remained in place, discretionary outlays would fall to 6.0 percent of GDP by 2022, still a smaller share than in any of the past 50 years.

Appropriations of the amounts allowed under the caps (with or without the automatic reductions) would mean a decrease in the real resources available for many government programs, compared with funding in 2012. If, instead, discretionary budget authority subject to the caps was allowed to grow at the rate of inflation, that funding would be about 13 percent higher in 2013 and 17 percent higher in 2022 than the amounts projected in CBO's baseline (see Figure 1-2 on page 16). Even under that assumption, discretionary outlays would fall to 6.4 percent of GDP by 2022. Discretionary spending has been that low or lower in only 4 of the past 50 years (from 1998 through 2001).

**Net Interest and Federal Debt.** Federal interest costs are largely determined by the stock of government debt and prevailing interest rates. The amount of federal debt held by the public has skyrocketed in the past few years, rising from 40 percent of GDP at the end of 2008 to an estimated 73 percent by the end of this year.<sup>18</sup> Because interest rates are expected to remain near historic lows in the short term, net interest outlays are projected to dip slightly in 2013—to \$218 billion—despite increased federal borrowing.

Interest rates are expected to rise noticeably after the next few years. Under the assumptions that govern CBO's baseline, debt held by the public is projected to reach \$11.3 trillion at the end of this year and to increase to

17. The caps also may be adjusted upward to allow additional spending for program integrity initiatives that identify and reduce overpayments in certain benefit programs as well as for some funding designated for emergencies and disaster relief.

18. For a discussion of the possible repercussions of the growth in federal debt, see Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis*, Issue Brief (July 2010).

**Table 1-3.****Discretionary Spending Projected in CBO's Baseline**

(Billions of dollars)

												Total	
												2013-	2013-
												2017	2022
Budget Authority													
Defense													
Increase discretionary appropriations for 2012 subject to the caps at the rate of inflation <sup>a</sup>	554	562	573	587	603	621	640	658	677	695	714	2,947	6,331
Reduction to meet the caps	n.a.	-16	-17	-21	-26	-31	-37	-42	-47	-51	-53	-112	-342
Caps established by the Budget Control Act	554	546	556	566	577	590	603	616	630	644	661	2,835	5,989
Automatic spending reductions <sup>b</sup>	n.a.	-55	-55	-55	-55	-55	-55	-55	-55	-55	-56	-273	-548
Caps with automatic spending reductions <sup>b</sup>	554	491	501	511	522	535	548	561	575	589	605	2,562	5,441
War spending (Excluded from the caps)	115	118	119	121	124	127	129	132	135	138	141	609	1,285
Total, Defense	670	609	621	633	646	662	678	694	711	727	746	3,171	6,726
Nondefense													
Increase discretionary appropriations for 2012 subject to the caps at the rate of inflation <sup>a</sup>	506	515	525	538	554	570	587	605	622	640	658	2,702	5,814
Reduction to meet the caps	n.a.	-14	-15	-18	-24	-29	-34	-39	-44	-50	-53	-100	-320
Caps established by the Budget Control Act	506	501	510	520	530	541	553	566	578	590	605	2,602	5,494
Automatic spending reductions <sup>b</sup>	n.a.	-39	-38	-38	-37	-36	-36	-34	-33	-32	-33	-188	-356
Caps with automatic spending reductions <sup>b</sup>	506	462	472	482	493	505	517	532	545	558	573	2,414	5,138
Exclusions from the caps													
War spending	11	11	12	12	12	12	13	13	13	14	14	59	127
Disaster relief <sup>c</sup>	10	11	11	11	11	9	9	9	9	10	10	52	99
Program integrity	*	*	1	1	1	1	1	1	1	1	1	3	6
Subtotal, Exclusions	22	23	23	23	24	22	22	22	23	24	25	114	231
Total, Nondefense	528	484	495	506	517	526	540	554	569	582	597	2,528	5,370
All Defense and Nondefense Budget Authority													
Increase discretionary appropriations for 2012 subject to the caps at the rate of inflation <sup>a</sup>	1,060	1,077	1,098	1,125	1,157	1,191	1,227	1,263	1,299	1,336	1,372	5,649	12,145
Reduction to meet the caps	n.a.	-30	-32	-39	-50	-60	-71	-81	-91	-102	-106	-212	-662
Caps established by the Budget Control Act	1,060	1,047	1,066	1,086	1,107	1,131	1,156	1,182	1,208	1,234	1,266	5,437	11,483
Automatic spending reductions <sup>b</sup>	n.a.	-94	-93	-92	-91	-91	-90	-89	-88	-87	-89	-461	-904
Caps with automatic spending reductions <sup>b</sup>	1,060	953	973	994	1,016	1,040	1,066	1,093	1,120	1,147	1,177	4,976	10,579
Exclusions from the caps	137	140	142	145	148	148	152	155	159	162	166	723	1,516
Total Discretionary Budget Authority	1,198	1,093	1,115	1,139	1,163	1,188	1,218	1,248	1,279	1,310	1,343	5,699	12,096

Continued

\$14.5 trillion by 2022 (see Table 1-4 on page 17).<sup>19</sup> As a result, annual net spending for interest will increase from

1.4 percent of GDP in 2013 to 2.3 percent by 2022, CBO projects.

19. Another measure of federal debt is debt subject to limit, which is the amount of debt subject to the overall ceiling set in law. (Currently, that ceiling is set at \$16.4 trillion.) Debt subject to limit includes securities held by federal trust funds and other government accounts. Because it includes those internal government transactions, it is less useful in assessing the impact that government borrowing has on financial markets.

## Budget Projections Under Alternative Scenarios

To illustrate how different decisions by policymakers about federal spending programs and the federal tax system would affect future deficits, CBO estimated the budgetary impact of several alternative policies



Table 1-3.

Continued

## Discretionary Spending Projected in CBO's Baseline

(Billions of dollars)

												Total	
												2013-	2013-
												2017	2022
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Outlays													
Defense													
Increase discretionary appropriations for 2012													
subject to the caps at the rate of inflation <sup>a</sup>	614	581	574	580	597	609	621	643	662	680	704	2,940	6,249
Reduction to meet the caps	n.a.	-10	-14	-18	-23	-28	-33	-39	-43	-48	-51	-93	-307
Caps established by the Budget Control Act	614	571	560	561	574	581	588	605	618	632	653	2,847	5,942
Automatic spending reductions <sup>b</sup>	n.a.	-24	-51	-53	-54	-54	-54	-54	-54	-54	-55	-237	-509
Caps with automatic spending reductions <sup>b</sup>	614	547	509	508	520	526	533	551	564	578	598	2,610	5,434
War spending (Excluded from the caps)	55	98	112	119	122	124	126	129	132	135	138	573	1,233
<b>Total, Defense</b>	<b>669</b>	<b>644</b>	<b>621</b>	<b>627</b>	<b>642</b>	<b>650</b>	<b>659</b>	<b>680</b>	<b>696</b>	<b>712</b>	<b>736</b>	<b>3,184</b>	<b>6,667</b>
Nondefense													
Increase discretionary appropriations for 2012													
subject to the caps at the rate of inflation <sup>a</sup>	614	603	600	603	613	625	638	655	673	692	710	3,043	6,411
Reduction to meet the caps	n.a.	-7	-12	-16	-20	-26	-32	-37	-43	-49	-53	-82	-294
Caps established by the Budget Control Act	614	596	588	587	592	599	606	618	630	643	657	2,961	6,117
Automatic spending reductions <sup>b</sup>	n.a.	-21	-32	-36	-36	-36	-36	-35	-34	-32	-32	-162	-331
Caps with automatic spending reductions <sup>b</sup>	614	574	555	551	556	563	571	583	597	611	625	2,800	5,786
Exclusions from the caps													
War spending	4	7	10	11	11	12	12	13	13	13	14	51	115
Disaster relief <sup>c</sup>	1	5	7	9	10	11	10	10	9	9	9	43	91
Program integrity	*	*	1	1	1	1	1	1	1	1	1	3	6
Subtotal, Exclusions	5	13	18	21	22	23	23	23	23	23	24	96	211
<b>Total, Nondefense</b>	<b>620</b>	<b>587</b>	<b>573</b>	<b>572</b>	<b>578</b>	<b>586</b>	<b>594</b>	<b>606</b>	<b>620</b>	<b>634</b>	<b>649</b>	<b>2,896</b>	<b>5,997</b>
All Defense and Nondefense Outlays													
Increase discretionary appropriations for 2012													
subject to the caps at the rate of inflation <sup>a</sup>	1,228	1,184	1,174	1,182	1,210	1,234	1,259	1,298	1,335	1,372	1,414	5,983	12,660
Reduction to meet the caps	n.a.	-17	-26	-34	-43	-54	-65	-76	-86	-97	-104	-174	-601
Caps established by the Budget Control Act	1,228	1,166	1,147	1,148	1,167	1,180	1,194	1,223	1,249	1,275	1,310	5,809	12,059
Automatic spending reductions <sup>b</sup>	n.a.	-46	-83	-89	-90	-91	-90	-89	-88	-87	-87	-398	-839
Caps with automatic spending reductions <sup>b</sup>	1,228	1,121	1,064	1,060	1,076	1,089	1,104	1,134	1,161	1,188	1,223	5,410	11,220
Exclusions from the caps	61	110	129	139	144	147	149	152	155	158	162	669	1,444
<b>Total Discretionary Outlays</b>	<b>1,289</b>	<b>1,231</b>	<b>1,194</b>	<b>1,199</b>	<b>1,220</b>	<b>1,236</b>	<b>1,253</b>	<b>1,286</b>	<b>1,316</b>	<b>1,346</b>	<b>1,384</b>	<b>6,079</b>	<b>12,664</b>

Source: Congressional Budget Office.

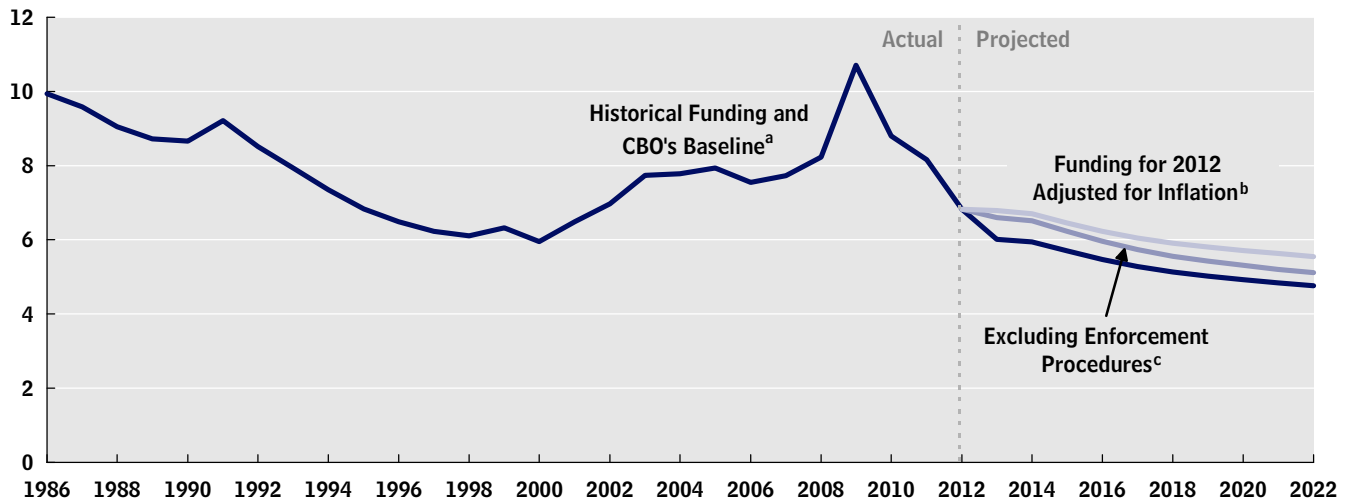
Note: n.a. = not applicable; \* = between zero and \$500 million.

- Funding for overseas contingency operations, disaster relief, and certain program integrity initiatives are not subject to the statutory caps established by the Budget Control Act. Such caps were specified through 2021; CBO has extrapolated the total for 2022 based on its projected rate of inflation.
- For 2013, such adjustments include a sequestration of budgetary resources. For 2022, CBO assumed the automatic spending reductions will equal the amount for 2021 adjusted for inflation.
- Under the Deficit Control Act, the limits on discretionary budget authority can be raised to reflect funding for disaster relief. However, the total increase in the cap in any year for that reason can be no more than the average funding for disaster relief over the previous 10 years (excluding the highest and lowest amounts) plus any amount by which the prior year's appropriation was below the maximum allowable cap adjustment for that year. In CBO's baseline, such funding exceeds the average beginning in 2017; that adjustment is included in the totals shown for disaster relief.

**Figure 1-2.**

## Total Discretionary Budget Authority Excluding War Funding, Disaster Relief, and Program Integrity Initiatives

(Percentage of gross domestic product)



Source: Congressional Budget Office.

- The actual data from 1986 to 2012 exclude war funding but include disaster relief and program integrity initiatives; the baseline projections from 2013 to 2022 incorporate the assumption that discretionary funding will adhere to the statutory caps and automatic enforcement procedures enacted into law by the Budget Control Act of 2011.
- Data reflect the assumption that discretionary funding related to personnel is inflated using the employment cost index for wages and salaries. All other discretionary funding is adjusted using the gross domestic product price index.
- Data reflect the assumption that discretionary funding will adhere to the statutory caps enacted into law by the Budget Control Act of 2011 but that the automatic enforcement procedures put in place by that law do not take effect.

(see Table 1-5 on page 18). The discussion focuses on the policies' direct impacts on revenues and outlays, but the changes also would affect the costs of paying interest on the federal debt (shown as "debt service" in Table 1-5).

### War-Related Discretionary Spending

CBO's projections of discretionary spending for the next 10 years include outlays for operations in Afghanistan and for other possible overseas contingency operations. The outlays in the baseline come from budget authority provided for those purposes in 2011 and earlier years, the \$126.5 billion in budget authority provided in 2012, and the \$1.4 trillion in appropriations projected for the 2013–2022 period (under the assumption, specified in law, that annual funding is set at the 2012 amount plus adjustments for anticipated inflation; such war-related funding is not constrained by the statutory caps established by the Budget Control Act).

In coming years, the funding required for war-related activities—in Afghanistan or other countries—may be

smaller than the amounts in the baseline if the number of deployed troops is smaller and the pace of operations is diminished. Thus, CBO formulated a budget scenario that anticipates a reduction in the deployment of U.S. forces abroad for military actions. Many other scenarios—some costing more and some less—also are possible.

The number of U.S. active-duty, Reserve, and National Guard personnel deployed for war-related activities averaged about 195,000 in 2011, CBO estimates. Under the scenario shown in Table 1-5, the average number of military personnel deployed for war-related purposes would decline over four years: from 115,000 in 2012 to 85,000 in 2013, 60,000 in 2014, and 45,000 in 2015 and thereafter. (Those numbers could represent various allocations of forces among Afghanistan and other places.) Under that scenario and under the assumption that the related funding for diplomatic operations and foreign aid declines at a similar rate, total discretionary outlays over the 2013–2022 period would be \$852 billion less than the amount in the baseline.

**Table 1-4.****Federal Debt Projected in CBO's Baseline**

(Billions of dollars)

	Actual, 2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Debt Held by the Public at the Beginning of the Year	9,019	10,128	11,318	12,064	12,545	12,861	13,144	13,371	13,536	13,746	13,964	14,181
Changes in Debt Held by the Public												
Deficit	1,300	1,128	641	387	213	186	123	79	130	142	144	213
Other means of financing	-190	63	104	94	103	98	103	86	80	77	73	70
<b>Total</b>	<b>1,109</b>	<b>1,190</b>	<b>745</b>	<b>481</b>	<b>316</b>	<b>283</b>	<b>226</b>	<b>165</b>	<b>210</b>	<b>219</b>	<b>217</b>	<b>283</b>
Debt Held by the Public at the End of the Year	10,128	11,318	12,064	12,545	12,861	13,144	13,371	13,536	13,746	13,964	14,181	14,464
<b>Memorandum:</b>												
<b>Debt Held by the Public at the End of the Year (As a percentage of GDP)</b>	<b>67.7</b>	<b>72.8</b>	<b>76.1</b>	<b>76.6</b>	<b>73.8</b>	<b>70.8</b>	<b>67.9</b>	<b>65.2</b>	<b>63.2</b>	<b>61.4</b>	<b>59.8</b>	<b>58.5</b>
Debt Held by the Public Excluding Financial Assets <sup>a</sup>												
In billions of dollars	9,170	10,474	11,111	11,483	11,693	11,861	11,982	12,045	12,155	12,276	12,398	12,582
As a percentage of GDP	61.3	67.4	70.1	70.1	67.1	63.9	60.8	58.0	55.9	54.0	52.3	50.9
Gross Federal Debt <sup>b</sup>	14,764	16,088	16,923	17,503	17,918	18,321	18,721	19,085	19,484	19,880	20,258	20,668
Debt Subject to Limit <sup>c</sup>	14,747	16,069	16,903	17,482	17,897	18,299	18,699	19,062	19,460	19,856	20,234	20,644

Source: Congressional Budget Office.

Note: GDP = gross domestic product.

- Subtracts from debt held by the public the value of financial assets (such as preferred stock) purchased from institutions participating in the Troubled Asset Relief Program and the Treasury's holdings of mortgage-backed securities, cash balances, and other financial instruments.
- Comprises federal debt held by the public plus Treasury securities held by federal trust funds and other government accounts.
- The amount of federal debt that is subject to the overall limit set in law. Debt subject to limit differs from gross federal debt because most debt issued by agencies other than the Treasury and the Federal Financing Bank is excluded from the debt limit, currently set at \$16.4 trillion.

**Other Discretionary Spending**

Policymakers could vary discretionary funding in many ways from what is assumed in the baseline. For example, if appropriations grew each year through 2022 at the same rate as inflation after 2012, discretionary spending would be about \$1.4 trillion higher for that period than it is in the baseline. If, in contrast, lawmakers kept appropriations for 2014 through 2022 at the nominal 2013 amount (after accounting for the nearly \$100 billion reduction that will result from the automatic enforcement procedures set in the Budget Control Act), total discretionary outlays would be \$904 billion lower than in the baseline for the period from 2014 through 2022. Under that scenario (sometimes called a freeze in

appropriations), total discretionary spending would fall from 8.3 percent of GDP in fiscal year 2012 to 4.8 percent in 2022; by comparison, the lowest share for discretionary spending in any year since 1962 (the earliest year for which such data have been reported) was 6.2 percent in 1999.

**Medicare's Payments to Physicians**

Under current law, starting in January 2013, spending for Medicare will be constrained by a rate-setting system that has existed for several years—called the sustainable growth rate—that controls the fees physicians receive for their services. If the system is allowed to operate as currently structured, physicians' fees will be reduced by 27 percent

**Table 1-5.****Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline**

(Billions of dollars)

													Total 2013- 2013-
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2017	2022
<b>Policy Alternatives That Affect Discretionary Outlays</b>													
Reduce the Number of Troops Deployed for Overseas Contingency Operations to 45,000 by 2015 <sup>a</sup>													
Effect on the deficit <sup>b</sup>	0	22	46	72	88	95	100	103	106	108	111	324	852
Debt service	0	*	*	1	3	7	13	19	25	31	37	11	135
Increase Discretionary Appropriations at the Rate of Inflation <sup>c</sup>													
Effect on the deficit <sup>b</sup>	0	-63	-109	-123	-133	-145	-155	-165	-174	-183	-191	-573	-1,440
Debt service	0	*	-1	-2	-6	-12	-22	-31	-41	-52	-63	-21	-230
Freeze Discretionary Appropriations at the Level for 2013 <sup>d</sup>													
Effect on the deficit <sup>b</sup>	0	0	11	29	49	71	96	122	148	175	204	160	904
Debt service	0	0	*	*	1	3	8	13	20	28	37	5	110
<b>Policy Alternative That Affects Mandatory Outlays</b>													
Maintain Medicare's Payment Rates for Physicians at the Current Rate <sup>e</sup>													
Effect on the deficit <sup>b</sup>	0	-10	-16	-18	-20	-22	-24	-28	-32	-36	-40	-85	-245
Debt service	0	*	*	*	-1	-2	-3	-5	-6	-8	-10	-3	-36
<b>Policy Alternative That Affects Both Discretionary and Mandatory Outlays</b>													
Remove the Effect of the Automatic Enforcement Procedures Specified in the Budget Control Act <sup>f</sup>													
Effect on the deficit <sup>b</sup>	0	-54	-96	-102	-104	-105	-105	-105	-105	-104	-93	-461	-972
Debt service	0	*	-1	-2	-5	-10	-17	-24	-30	-37	-43	-17	-169
<b>Policy Alternatives That Affect the Tax Code<sup>g</sup></b>													
Extend Certain Income Tax and Estate and Gift Tax Provisions Scheduled to Expire on December 31, 2012 <sup>h</sup>													
Effect on the deficit <sup>b</sup>	0	-108	-214	-254	-268	-283	-297	-310	-322	-334	-346	-1,128	-2,736
Debt service	0	*	-2	-4	-11	-24	-43	-61	-80	-99	-120	-41	-444
Index the AMT for Inflation <sup>i</sup>													
Effect on the deficit <sup>b</sup>	0	-103	-42	-49	-57	-66	-78	-92	-107	-125	-144	-317	-864
Debt service	0	*	-1	-1	-3	-7	-12	-17	-23	-29	-37	-12	-130

**Continued**

Sources: Congressional Budget Office; Joint Committee on Taxation.

Notes: Negative numbers indicate an increase in the deficit; positive numbers indicate a decrease in the deficit.

\* = between -\$500 million and \$500 million; GDP = gross domestic product; AMT = alternative minimum tax.

- For this alternative, CBO does not extrapolate the \$127 billion in budget authority for military operations, diplomatic activities, and foreign aid in Afghanistan and other countries provided for 2012. Rather, the alternative incorporates the assumption that future funding for overseas contingency operations would total \$86 billion in 2013, \$61 billion in 2014, \$43 billion in 2015, and about \$40 billion a year from 2016 on—for a total of \$464 billion over the 2013–2022 period.
- Excludes debt service.
- These estimates reflect the assumption that appropriations will not be constrained by caps and other provisions of the Budget Control Act and will instead grow at the rate of inflation from their 2012 level. Discretionary funding related to federal personnel is inflated using the employment cost index for wages and salaries; other discretionary funding is adjusted using the GDP price index.
- This option reflects the assumption that appropriations for 2013 that are covered by the caps will total \$953 billion (the cap of \$1,047 billion minus an estimated reduction of \$94 billion resulting from the automatic enforcement procedures for that year). Such appropriations would be frozen at the 2013 level through 2022.
- Medicare's current payment rates for physicians' services are scheduled to drop by 27 percent on January 1, 2013, and by additional amounts in subsequent years. Under this scenario, payment rates are assumed to continue at their current level through 2022.

Table 1-5.

Continued

**Budgetary Effects of Selected Policy Alternatives Not Included in CBO's Baseline**

(Billions of dollars)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 2013- 2013-	
												2017	2022
<b>Policy Alternatives That Affect the Tax Code<sup>9</sup> (Continued)</b>													
Extend Certain Income Tax and Estate and Gift Tax Provisions Scheduled to Expire on December 31, 2012, and Index the AMT for Inflation <sup>l</sup>													
Effect on the deficit <sup>b</sup>	0	-247	-319	-372	-404	-439	-474	-511	-548	-588	-630	-1,781	-4,532
Debt service	0	-1	-3	-6	-18	-37	-68	-97	-128	-161	-197	-65	-717
Extend Certain Income Tax and Estate and Gift Tax Provisions Scheduled to Expire on December 31, 2012, and Index the AMT for Inflation but Allow Lower Tax Rates on Income Above a Certain Threshold to Expire <sup>k</sup>													
Effect on the deficit <sup>b</sup>	0	-205	-280	-309	-332	-357	-384	-413	-443	-475	-510	-1,483	-3,708
Debt service	0	-1	-3	-5	-15	-31	-56	-80	-105	-132	-161	-55	-590
Extend Other Expiring Tax Provisions <sup>l</sup>													
Effect on the deficit <sup>b</sup>	0	-84	-102	-95	-91	-86	-83	-82	-84	-89	-95	-457	-890
Debt service	0	*	-1	-2	-5	-10	-16	-22	-28	-33	-39	-18	-157
<b>Memorandum:</b>													
Outlays for Operations in Afghanistan and for Similar Activities in CBO's Baseline	139	141	136	135	135	136	139	142	145	148	152	683	1,407
Deficit in CBO's Baseline	-1,128	-641	-387	-213	-186	-123	-79	-130	-142	-144	-213	-1,549	-2,258

- f. The Budget Control Act specified that if lawmakers did not enact legislation originating from the Joint Select Committee on Deficit Reduction that would reduce projected deficits by at least \$1.2 trillion, automatic procedures would go into effect to reduce both discretionary and mandatory spending during the 2013–2021 period. Such automatic reductions in spending would take the form of equal cuts (in dollar terms) in funding for defense and nondefense programs in 2013 through 2021. For 2013, those reductions would be achieved by automatically canceling a portion of the budgetary resources (in an action known as sequestration) for most discretionary programs and for some programs and activities financed by mandatory spending. For the 2014–2021 period, the automatic procedures would be enforced by lowering the caps on discretionary budget authority specified in the Budget Control Act and through sequestration of mandatory spending. The budgetary effects of this option cannot be combined with those of any of the alternatives that affect discretionary spending other than the one to reduce the number of troops deployed for overseas contingency operations.
- g. The estimates are mainly from the staff of the Joint Committee on Taxation and are preliminary.
- h. This alternative incorporates the assumption that lawmakers will extend title I of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (which extended for 2011 and 2012 income tax provisions enacted in 2001, 2003, and 2009) and title III of that act (which modified estate and gift taxation for 2010 through 2012). It does not incorporate the assumption that the AMT is indexed for inflation; the effects of that alternative are shown separately.
- i. This alternative incorporates the assumption that the exemption amount for the AMT (which was increased through the end of December 2011) is extended at its higher amount and, together with the AMT tax brackets, is indexed for inflation after 2011. In addition, the treatment of nonrefundable personal credits (which also was continued through the end of 2011) is assumed to be extended.
- j. The combination of extending certain income tax provisions scheduled to expire on December 31, 2012, and indexing the AMT for inflation reduces revenues by more than the sum of those alternatives considered alone. The total shown here includes an additional revenue loss of \$931 billion over the 2013–2022 period that results from the interaction of the two policies.
- k. This alternative incorporates the assumption that lawmakers will index the AMT for inflation and extend title I of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (which extended for 2011 and 2012 income tax provisions enacted in 2001, 2003, and 2009) except for the reductions to the top two tax rates on ordinary income and to the tax rates on capital gains and dividends for taxpayers with income above \$250,000 who file joint tax returns and for single filers with income above \$200,000 (indexed for inflation since 2009). It also reflects the assumption that the elimination of limits on itemized deductions and personal exemptions is not extended for those high-income taxpayers and that title III of that act (which modified estate and gift taxation for 2010 through 2012) is extended.
- l. These estimates reflect the impact of extending about 80 provisions, many of which expired at the end of December 2011. Nearly all of those provisions also had been extended previously; some, such as the research and experimentation tax credit, more than once.

in January 2013 and by additional amounts in subsequent years, CBO projects. If, instead, lawmakers override those scheduled reductions—as they have every year since 2003—spending on Medicare might be significantly greater than the amounts projected in CBO’s baseline. For example, if payment rates through 2022 stay as they are now, outlays for Medicare (net of premiums) would be \$10 billion higher in 2013 and about \$245 billion (or about 3 percent) higher between 2013 and 2022 than they are in the current-law baseline.

### Automatic Enforcement Procedures

The Budget Control Act provides for automatic procedures to reduce discretionary and mandatory spending that take effect in fiscal year 2013 and continue through 2021. If fully implemented, those procedures will require equal reductions (in dollar terms) in defense and non-defense spending. For 2013, the reductions are to be achieved by automatically canceling a portion of the budgetary resources (an action known as sequestration) for most discretionary programs as well as for some programs and activities that are classified as mandatory spending.<sup>20</sup> For the period from 2014 through 2021, the law requires the automatic procedures to be enforced by lowering the caps on discretionary budget authority specified in the Budget Control Act and through sequestration for mandatory spending.

If, instead, lawmakers chose to prevent those automatic cuts each year, spending would be nearly \$1 trillion (or about 2 percent) higher over the 2013–2022 period than the amount now projected in CBO’s baseline. Total discretionary outlays would be \$839 billion (or 6.6 percent) higher, and mandatory outlays would be \$133 billion (or 0.5 percent) higher.<sup>21</sup>

### Revenues

Under the rules that govern CBO’s baseline, all provisions of the Tax Relief, Unemployment Insurance

Reauthorization, and Job Creation Act of 2010 (the 2010 tax act, P.L. 111-312) expire by January 2013. Those expirations will increase revenues by raising individual income tax rates, reducing the child tax credit, eliminating the American Opportunity Tax Credit, raising estate tax rates, lowering the effective exemption amount for the AMT (which took effect at the end of December 2011), and making other changes. If those expiring provisions (and others that are set to expire under current law or that have recently expired) were extended through 2022, total revenues would be significantly lower than they are in the baseline.

For example, if the major income tax and estate and gift tax provisions of the 2010 tax act (excluding those related to the exemption amount for the AMT) were extended beyond their expiration dates, the staff of the Joint Committee on Taxation (JCT) estimates that revenues would be lower—and, as a much smaller effect, outlays for refundable tax credits would be higher—by a total of \$2.7 trillion over the 2013–2022 period.<sup>22</sup> Under that scenario, the effect of reducing the amount of regular income tax that people owed would be partly offset by an increase in the number of taxpayers who would be subject to the AMT.

Another policy that could alter revenues involves modifying the AMT. Because the exemption amount and brackets for the AMT are not indexed for inflation (as the parameters of the regular individual income tax are), many more people become subject to the AMT as time goes on. Under current law, that phenomenon will cause the impact of the AMT to increase sharply in coming years. If, instead, the parameters of the AMT were indexed for inflation after 2011 (with no other changes made to the tax code), federal revenues over the next 10 years would be \$864 billion lower than the amount in the baseline.

The number of taxpayers subject to the AMT will depend on whether the expiring tax provisions in the 2010 tax act remain in effect. If those provisions were extended and the AMT was indexed for inflation, the combination of the two changes would reduce revenues by \$931 billion

20. Budgetary resources consist of all sources of authority provided to federal agencies that permit them to incur financial obligations, including new budget authority, unobligated balances, direct spending authority, and obligation limitations.

21. Because of interactions between the effects of different policy options, the estimated budgetary effects of this option cannot be added to the estimated budgetary effects of any of the alternatives that affect discretionary spending other than the one to reduce the number of troops deployed for certain types of overseas military operations.

22. The specific provisions covered by this estimate are identified in footnote h to Table 1-5. That estimate excludes any effects that the expiration of the tax provisions would have on the economy. CBO’s baseline projection, in contrast, incorporates such macroeconomic effects.

more than the sum of the effects of the two policy alternatives considered separately. Thus, the total impact of extending certain income tax and estate and gift tax provisions that are set to expire by January 2013 and indexing the AMT for inflation would be to reduce revenues and increase outlays for refundable tax credits over the 2013–2022 period by a total of \$4.5 trillion.

The budgetary cost of that alternative would be lower if certain provisions were allowed to expire that would otherwise have applied to married couples with annual income of \$250,000 or more and single taxpayers with annual income of \$200,000 or more.<sup>23</sup> Under the policy of indexing the AMT for inflation and extending the expiring tax provisions except for the specific provisions affecting high-income taxpayers, revenues would be lower and outlays for refundable credits would be higher by a total of about \$3.7 trillion over the 2013–2022 period. That amount is about \$0.8 trillion (or 18 percent) less than the \$4.5 trillion total reduction in revenues and increase in outlays that would result from indexing the AMT and extending the expiring provisions for all taxpayers. If only the income tax provisions are taken into account—thus excluding the \$0.4 trillion in revenue loss in both cases from extending the estate and gift tax provisions—the budgetary costs from indexing the AMT and extending the expiring provisions would be about 20 percent less as a result of allowing those provisions affecting high-income taxpayers to expire.

Other tax provisions, beyond the income tax and estate and gift tax provisions, have already expired (at the end of December 2011) or are scheduled to expire in the next 10 years. If all of them (other than the payroll tax reduction of 2011 and 2012) were extended, revenues would be lower and outlays for refundable tax credits would be higher than the amounts in the baseline by \$890 billion

over the 2013–2022 period, JCT and CBO estimate. Therefore, the total impact of extending all expiring tax provisions (again, other than the payroll tax reduction) for all taxpayers would be to reduce revenues and increase outlays for refundable tax credits over the next decade by \$5.4 trillion. Excluding the income tax provisions affecting high-income taxpayers would reduce that amount by about \$0.8 trillion.

### An Alternative Fiscal Scenario

If a combination of those changes to current law was made so as to maintain major policies that have been in place for a number of years, far larger deficits and much greater debt would result than are shown in CBO's current baseline. Relative to the baseline projections for the 2013–2022 period, deficits would rise by a total of \$7.7 trillion (including debt-service costs) to yield cumulative deficits of nearly \$10 trillion over the 10-year period if the following policy decisions were made:

- All expiring tax provisions (other than the payroll tax reduction), including those that expired at the end of December 2011, are extended;
- The AMT is indexed for inflation after 2011 (starting from the 2011 exemption amount);
- Medicare's payment rates for physicians remain unchanged from the current amounts; and
- The automatic spending reductions required by the Budget Control Act do not take effect (although the original caps on discretionary appropriations in that law remain in place).

Under that scenario, revenues from 2013 to 2022 would average about 18 percent of GDP, which is equal to their 40-year average, and outlays would average about 23 percent of GDP, above their 40-year average of 21 percent. Deficits would average about 5 percent of GDP over the coming decade; by 2022, the deficit would be equal to 5.5 percent of GDP (see Table 1-6). Debt held by the public would reach about 90 percent of GDP by the end of 2022, the largest share since 1947.

23. The provisions included in this discussion are the lower tax rates in the top two income tax brackets, the lower 15 percent tax rate on capital gains and dividends, and the elimination of the phase-out for itemized deductions and personal exemptions. In addition, this option incorporates the assumption that the \$200,000 and \$250,000 income thresholds would be indexed for inflation since 2009.

**Table 1-6.****Deficits Projected in CBO's Baseline and Under an Alternative Fiscal Scenario**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	
												2013-	2013-
												2017	2022
<b>In Billions of Dollars</b>													
<i>CBO's August 2012 Baseline</i>													
Revenues	2,435	2,913	3,208	3,541	3,817	4,083	4,328	4,551	4,790	5,039	5,295	17,562	41,565
Outlays	3,563	3,554	3,595	3,754	4,003	4,206	4,407	4,681	4,932	5,183	5,509	19,111	43,823
<b>Deficit</b>	<b>-1,128</b>	<b>-641</b>	<b>-387</b>	<b>-213</b>	<b>-186</b>	<b>-123</b>	<b>-79</b>	<b>-130</b>	<b>-142</b>	<b>-144</b>	<b>-213</b>	<b>-1,549</b>	<b>-2,258</b>
Debt Held by the Public at the End of the Year	11,318	12,064	12,545	12,861	13,144	13,371	13,536	13,746	13,964	14,181	14,464	n.a.	n.a.
<i>Alternative Fiscal Scenario</i>													
Revenues	2,435	2,583	2,825	3,111	3,361	3,596	3,808	3,996	4,196	4,399	4,608	15,476	36,483
Outlays	3,563	3,621	3,748	3,921	4,193	4,430	4,678	4,999	5,298	5,599	5,970	19,913	46,457
<b>Deficit</b>	<b>-1,128</b>	<b>-1,037</b>	<b>-924</b>	<b>-810</b>	<b>-832</b>	<b>-833</b>	<b>-870</b>	<b>-1,003</b>	<b>-1,102</b>	<b>-1,200</b>	<b>-1,362</b>	<b>-4,437</b>	<b>-9,975</b>
Debt Held by the Public at the End of the Year	11,318	12,460	13,478	14,391	15,321	16,258	17,215	18,298	19,477	20,749	22,181	n.a.	n.a.
<b>As a Percentage of Gross Domestic Product</b>													
<i>CBO's August 2012 Baseline</i>													
Revenues	15.7	18.4	19.6	20.3	20.6	20.7	20.8	20.9	21.1	21.2	21.4	20.0	20.6
Outlays	22.9	22.4	21.9	21.5	21.6	21.4	21.2	21.5	21.7	21.8	22.3	21.7	21.7
<b>Deficit</b>	<b>-7.3</b>	<b>-4.0</b>	<b>-2.4</b>	<b>-1.2</b>	<b>-1.0</b>	<b>-0.6</b>	<b>-0.4</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.9</b>	<b>-1.8</b>	<b>-1.1</b>
Debt Held by the Public at the End of the Year	72.8	76.1	76.6	73.8	70.8	67.9	65.2	63.2	61.4	59.8	58.5	n.a.	n.a.
<i>Alternative Fiscal Scenario</i>													
Revenues	15.7	16.3	17.2	17.8	18.1	18.3	18.3	18.4	18.5	18.5	18.6	17.6	18.1
Outlays	22.9	22.8	22.9	22.5	22.6	22.5	22.5	23.0	23.3	23.6	24.1	22.6	23.0
<b>Deficit</b>	<b>-7.3</b>	<b>-6.5</b>	<b>-5.6</b>	<b>-4.6</b>	<b>-4.5</b>	<b>-4.2</b>	<b>-4.2</b>	<b>-4.6</b>	<b>-4.8</b>	<b>-5.1</b>	<b>-5.5</b>	<b>-5.0</b>	<b>-4.9</b>
Debt Held by the Public at the End of the Year	72.8	78.6	82.3	82.5	82.5	82.5	82.9	84.1	85.7	87.5	89.7	n.a.	n.a.

Continued



**Table 1-6.****Continued****Deficits Projected in CBO's Baseline and Under an Alternative Fiscal Scenario**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	
												2013-	2013-
												2017	2022
<b>Memorandum:</b>													
Deficit: Alternative Fiscal Scenario													
Minus CBO's August 2012 Baseline													
In billions of dollars	0	-396	-537	-597	-647	-711	-791	-873	-960	-1,056	-1,149	-2,888	-7,717
As a percentage of GDP	0	-2.5	-3.3	-3.4	-3.5	-3.6	-3.8	-4.0	-4.2	-4.5	-4.6	-3.3	-3.8
Policy Alternatives That Affect the													
Tax Code (Billions of dollars)													
Effect on revenues	0	-329	-384	-430	-457	-487	-520	-556	-594	-639	-688	-2,086	-5,083
Effect on outlays	0	1	37	38	38	38	38	38	38	37	37	152	340
Effect on the deficit <sup>a</sup>	0	-330	-420	-468	-495	-525	-558	-593	-632	-676	-725	-2,238	-5,422

Source: Congressional Budget Office.

**Note:** The alternative fiscal scenario incorporates the assumptions that all expiring tax provisions (other than the payroll tax reduction), including those that expired at the end of December 2011, are instead extended; that the alternative minimum tax is indexed for inflation after 2011 (starting at the 2011 exemption amount); that Medicare's payment rates for physicians' services are held constant at their current level; and that the automatic enforcement procedures specified by the Budget Control Act of 2011 do not take effect. Outlays under the alternative fiscal scenario also include the incremental interest costs associated with projected additional borrowing.

n.a. = not applicable; GDP = gross domestic product.

a. Negative numbers indicate an increase in the deficit.



## The Economic Outlook

**T**he Congressional Budget Office (CBO) anticipates a modest pace of economic expansion for the remainder of this year. But the sharp increases in federal taxes and reductions in federal spending that are scheduled under current law to begin in calendar year 2013 are likely to interrupt the recent economic progress. By CBO's estimate, that fiscal tightening will probably lead to a recession in 2013 and to an unemployment rate that remains above 8 percent through 2014.

After growing at an annual rate of 1.7 percent in the first half of 2012, real (inflation-adjusted) gross domestic product (GDP) will increase by 2.2 percent in the second half of the year, CBO projects. That forecast reflects CBO's expectation that businesses' and consumers' concern about the scheduled fiscal tightening will lead them to spend more cautiously than they would otherwise. CBO also expects that the unemployment rate in the second half of 2012 will be little changed from the first half and that the rate of inflation in consumer prices in the second half will be slower than that in the first six months.

The increases in federal taxes and reductions in federal spending, totaling almost \$500 billion, that are projected to occur in fiscal year 2013 represent an amount of deficit reduction over the course of a single year that has not occurred (as a share of GDP) since 1969. Consequently, CBO projects that real GDP will drop by 0.5 percent in 2013 (as measured by the change from the fourth quarter of 2012 to the fourth quarter of 2013)—reflecting a decline in the first half of the year and renewed growth at a modest pace later in the year. The rate of inflation and interest rates are projected to stay quite low next year.

In CBO's baseline forecast, the pace of economic activity picks up after 2013, but the economy remains below its potential until 2018, when output reaches the level that corresponds to a high rate of use of labor and capital. The

unemployment rate falls from 9.1 percent at the end of 2013 to 5.7 percent at the end of 2017, interest rates rise to more-normal levels, and the rate of inflation rises modestly.

CBO's projections for output from 2018 to 2022 are based on the assumption that real GDP will grow at the same rate as potential GDP; the agency does not attempt to predict the timing or magnitude of fluctuations in business cycles beyond 2017. CBO expects that by 2022 the annual unemployment rate will have dropped to 5.3 percent and the rate of inflation will hold steady near 2 percent. CBO also projects that the deficit reductions embodied in current law will result in output and income later in the 10-year projection period that will be greater than what would occur if deficits were larger.

Of course, the tax and spending policies that are scheduled to take effect under current law may be delayed or modified. To illustrate how some changes to current law would affect the economy over the next decade, CBO analyzed an alternative fiscal scenario that would maintain many policies that have been in place for several years. Specifically, that scenario incorporates the assumptions that all expiring tax provisions (other than the payroll tax reduction) are extended indefinitely; the alternative minimum tax is indexed for inflation after 2011; Medicare's payment rates for physicians' services are held constant at their current level; and the automatic spending reductions required by the Budget Control Act of 2011 (Public Law 112-25) do not occur (although the original caps on discretionary appropriations remain in place). Under that scenario, real GDP would be higher in the first few years of the projection period than in CBO's baseline economic forecast; the economy would continue to grow in 2013 and the unemployment rate would fall (although it probably would remain near 8 percent in 2013 and above 7 percent through most of 2014). By 2022, however, the larger federal deficits and the resulting

larger amount of federal debt created by the continuation of those policies would reduce output and income relative to the figures in CBO's baseline forecast.

The path of recovery has so far been difficult to predict, and outcomes in coming years will no doubt hold surprises as well. Many developments apart from fiscal policy—such as the evolution of the banking and fiscal problems in Europe and the pace of recovery in the U.S. housing market—could cause economic outcomes that are substantially different from those CBO has projected.

CBO's forecast differs in some respects from its January 2012 projections, from the August 2012 *Blue Chip* consensus forecast (which is based on about 50 private-sector forecasts), and from the forecasts of the June 2012 meeting of the Federal Reserve's Federal Open Market Committee.<sup>1</sup> Compared with its January forecast, CBO now projects a lower unemployment rate in 2012 and 2013, a higher rate during the 2014–2017 period, and a rate that is about the same after 2017. In CBO's current projection, real GDP grows more slowly, on average, and by 2022, it is about 1 percent below the value in the January 2012 forecast. CBO's projection for the growth of real GDP in 2013 is considerably below the *Blue Chip* consensus projection and the Federal Reserve's projections—primarily because other forecasters generally use different assumptions about fiscal policy. CBO's projection for the unemployment rate in the fourth quarter of 2013 is also higher than the projections of those other forecasters.

## The Economy in 2012

The economy expanded modestly in the first half of 2012. Real GDP increased at an average annual rate of 1.7 percent in the first half, a bit slower than in 2011 and less than its average rate during the previous expansion (see Figure 2-1). The unemployment rate fell slightly, and interest rates remained low. Consumer prices (measured by the personal consumption expenditures, or PCE, price index) rose at an annual rate of 1.6 percent in the first half of the year, compared with 2.5 percent in 2011 (as measured on a fourth-quarter-to-fourth-quarter basis), when temporary factors added to the rate of inflation. One encouraging development was further evidence that a recovery in the housing market is under way.

1. See Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2012 to 2022* (January 2012).

The recent tepid growth in the U.S. economy is consistent with evidence from other countries that financial crises often are followed first by deep and long recessions and then by slow recoveries. Indeed, some research indicates that severe financial crises produce significant and lasting effects on asset prices, output, and employment.<sup>2</sup> Other work has emphasized that recessions that are characterized by large declines in housing prices, such as the most recent recession, tend to have slower recoveries.<sup>3</sup>

Primarily because of stronger business investment, CBO expects the pace of the expansion to increase a little during the rest of this year. CBO projects that real GDP will increase at an annual rate of 2.2 percent in the second half of 2012. That growth, however, is expected to be insufficient to reduce the unemployment rate, which will be 8.2 percent, on average, in the second half. Similarly, CBO anticipates that inflation (measured by the PCE price index) will decline further and interest rates on federal borrowing will remain low. Those projections reflect CBO's view that private-sector spending later this year will be limited by the specter of fiscal tightening and a looming recession in 2013.

## Consumer Spending

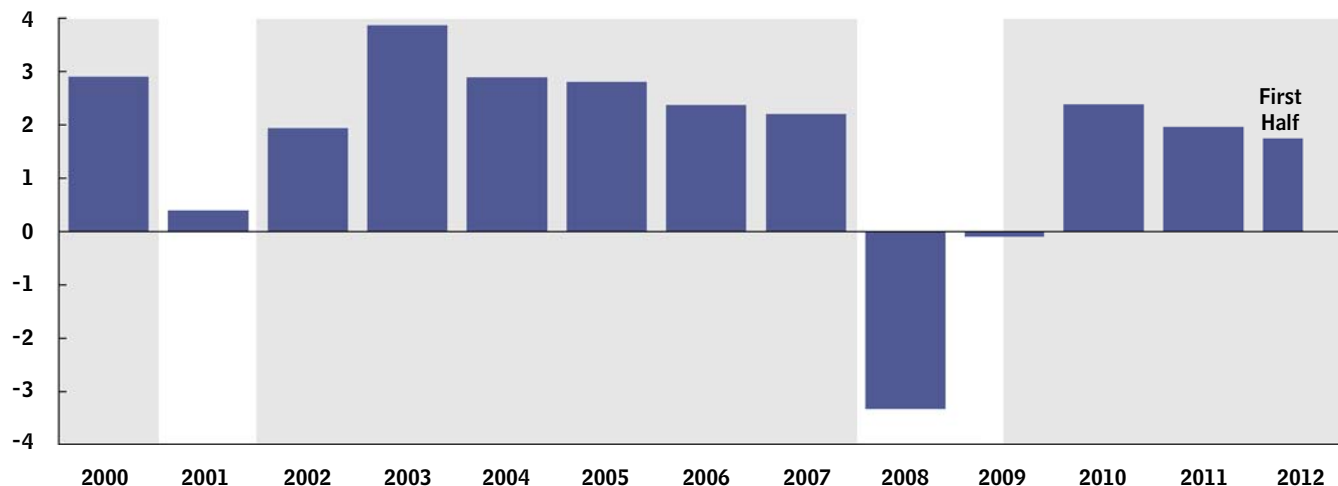
Real spending on consumer goods and services increased at an average annual rate of 2.0 percent in the first half of 2012, about the same as in 2011. That slow growth reflects continued high unemployment, moderate growth in real disposable (after-tax) personal income, and some improvement in households' net worth (assets minus liabilities) in the first quarter. In addition, for many consumers, access to credit is tight.

2. See, for example, Carmen M. Reinhart and Vincent R. Reinhart, "After the Fall," in *Macroeconomic Challenges: The Decade Ahead* (proceedings of the 2010 economic policy symposium, Federal Reserve Bank of Kansas City, August 2010), [www.kc.frb.org/publications/research/escp/escp-2010.cfm](http://www.kc.frb.org/publications/research/escp/escp-2010.cfm). For additional research on the topic, see Michael D. Bordo and Joseph G. Haubrich, *Deep Recessions, Fast Recoveries, and Financial Crises: Evidence from the American Record*, Working Paper 12-14 (Federal Reserve Bank of Cleveland, June 2012), [www.clevelandfed.org/research/research\\_publication.cfm?id=35](http://www.clevelandfed.org/research/research_publication.cfm?id=35).

3. See Greg Howard, Robert Martin, and Beth Anne Wilson, *Are Recoveries from Banking and Financial Crises Really So Different?* International Finance Discussion Paper 1037 (Board of Governors of the Federal Reserve System, November 2011), <http://go.usa.gov/7q6>.

**Figure 2-1.****Real Gross Domestic Product**

(Percentage change, fourth quarter to fourth quarter)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Real gross domestic product is the output of the economy adjusted to remove the effects of inflation.

Data are annual through 2011. The value for 2012 is the annualized growth rate for the first half of the year.

CBO expects that consumer spending in the second half of the year will grow a bit faster than in the first half, supported primarily by rising real disposable personal income, which increased at an average annual rate of 3.3 percent in the first half of 2012. CBO projects that the pace of growth in such income will increase significantly in the second half, largely because of the shifting of bonuses and similar types of income into 2012 from 2013 (when, under current law, tax rates will be higher) and—more important for spending—because of the slowing of the rate of inflation.

Other influences on consumer spending are likely to offer limited support for growth during the rest of 2012. Some households will probably pull back on spending later in the year in response to rising concerns about the effects of the future fiscal tightening. Although house prices seem to have reached their bottom, CBO estimates that they will rise only modestly for some time, in part because the recovery in the housing market is likely to be dampened by concerns about what will happen to the economy in 2013. Financial institutions have gradually become more willing to lend to consumers, but, for most loans, qualification standards and terms (such as down payments) are still stricter than they were before the financial crisis.<sup>4</sup> In addition, CBO expects that the pace

of improvement in credit conditions will slow as banks begin to anticipate a weaker economy next year.

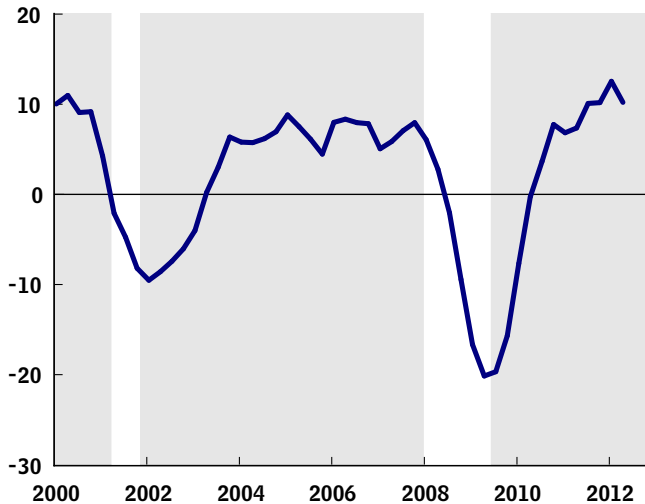
**Investment**

Business and residential investment are growing strongly. Real business fixed investment—in nonresidential structures, equipment, and software—grew at an annual rate of 6.4 percent in the first six months of the year. Measured from the same quarter in the previous year, growth in business fixed investment was 10.2 percent for the second quarter of 2012, matching the rate in the fourth quarter of 2011 (see Figure 2-2). Despite that growth, net investment (fixed investment minus depreciation) as a fraction of GDP remains unusually low. CBO expects real fixed investment to grow at an above-average pace during the second half of 2012, supported by favorable conditions in markets for corporate borrowing but restrained by businesses' concern about possible major changes in fiscal policies. Investment in inventories (the other component of business investment) was moderately stronger in the first half of 2012 than in the second half of 2011. However, with inventories now roughly in line

4. Board of Governors of the Federal Reserve System, *The July 2012 Senior Loan Officer Opinion Survey on Bank Lending Practices* (August 6, 2012), <http://go.usa.gov/7qF>.

**Figure 2-2.****Real Business Fixed Investment**

(Percentage change from same quarter of previous year)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Real business fixed investment consists of businesses' spending on nonresidential structures, equipment, and software, adjusted to remove the effects of inflation.

Data are quarterly and are plotted through the second quarter of 2012.

with sales, investment in inventories is unlikely to pick up in the second half of 2012.

Real residential investment rose at an average annual rate of 15.1 percent in the first half of this year. Measured from the same quarter in the previous year, the growth of residential investment was 10.7 percent in the second quarter, as compared with 3.9 percent in the fourth quarter of 2011 (see Figure 2-3). That growth is in part a response to the continued decline in the number of vacant housing units, which, because of overbuilding during the housing boom and slow household formation after the peak of that boom, became a record share of the overall housing stock during the recession. After the weak residential investment of recent years, the number of vacant units in excess of what would be expected under normal market conditions fell to 1.6 million, or 1.2 percent of the total stock, in the first half of 2012, down from a peak of 2.9 million units in the fourth quarter of 2008. As the number of vacant units continues to decline, real residential investment is likely to continue to grow at a robust pace during the second half of 2012 even

though some people (such as those with poor credit histories) remain largely shut out of the mortgage market.

**Government Purchases**

A decrease in real purchases of goods and services by federal, state, and local governments (as measured in the national income and product accounts) has hampered the growth of output in the first half of this year. Real purchases by the federal government fell at an average annual rate of 2.3 percent in the first half of the year, after falling by 4.2 percent last year (as measured on a fourth-quarter-to-fourth-quarter basis); most of the decline this year was in spending for national defense. Purchases by state and local governments fell at an average annual rate of about 2.1 percent in the first half of the year, after falling by 2.7 percent last year.

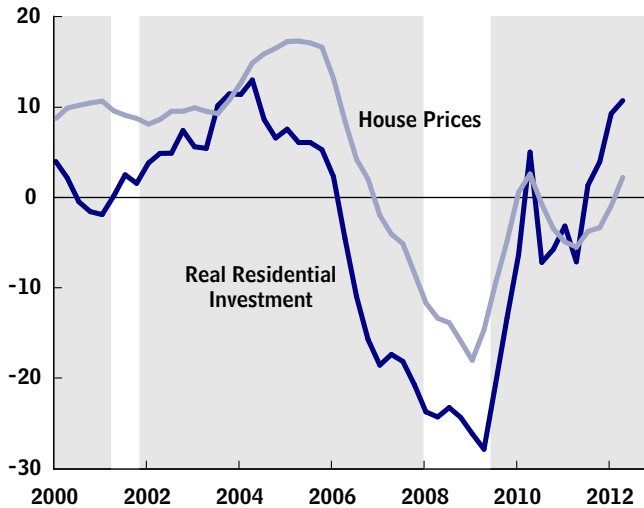
Real spending by governments is likely to continue to decline in the second half of this year, albeit less than in the first half. Defense spending—which accounts for two-thirds of federal purchases as measured in the national income and product accounts—will continue to reflect the cutback in military operations in Afghanistan and Iraq (the last U.S. troops left Iraq in December 2011). States and localities are expected to continue to collect less in tax revenues, after an adjustment for inflation, than they did before the recession, and the flow of federal aid stemming from the American Recovery and Reinvestment Act of 2009 (P.L. 111-5) has largely ended. State governments also will continue to face large commitments for spending on Medicaid, and state and local governments face large liabilities for pensions (neither of which are part of government purchases as recorded in the national income and product accounts).

**International Trade**

Real net exports fell somewhat in the first half of this year, and CBO expects them to be a slight drag on the growth of real GDP for the rest of 2012 as well. Net exports are forecast to edge downward because economic growth among the nation's leading trading partners, which peaked in mid-2010, has continued to slow, while economic activity in the United States has continued to grow at a modest pace since mid-2011 (see Figure 2-4). The expected decline in net exports also reflects the appreciation in the exchange value of the dollar since mid-2011 and CBO's expectation of continued appreciation for the remainder of the year.

**Figure 2-3.****Housing Market Indicators**

(Percentage change from same quarter of previous year)



Sources: Congressional Budget Office; CoreLogic; Department of Commerce, Bureau of Economic Analysis.

Notes: Real residential investment consists of spending on residential construction, improvements to existing housing, mobile homes, and real estate brokers' commissions, adjusted to remove the effects of inflation.

House prices are measured by the CoreLogic National House Price Index.

Data are quarterly and are plotted through the second quarter of 2012.

CBO anticipates that most foreign economies will grow more slowly this year than last. The United Kingdom is in a recession. The real output of the euro zone (consisting of the 17 members of the European Union that use the euro as their currency) decreased slightly in the second half of last year, has not grown so far this year, and is expected to contract modestly over the remainder of this year. The average growth rate in major emerging economies—among them China, Brazil, and India—is still considerably higher than the rates in the economies of other U.S. trading partners, but it has fallen significantly since 2011.

Banking and fiscal problems in the euro zone, which have spread from Greece to larger economies such as Spain and Italy, have interrupted the dollar's long-term downward trend. Since June 2011, the exchange value of the U.S. dollar has risen by nearly 17 percent relative to the euro; relative to a broader set of 26 currencies, the trade-weighted value of the dollar has appreciated by about

7 percent. That change is partly the result of foreign investors' sending capital to the United States in search of safe U.S. assets (such as U.S. Treasury securities) and partly because U.S. banks and other financial institutions have substantially reduced their holdings of assets with exposure to economic problems in the euro zone. CBO expects the dollar to appreciate further this year as those tendencies continue.

**The Labor Market**

The labor market remains soft, largely because of continued weakness in the demand for goods and services.<sup>5</sup> The unemployment rate (which peaked at 10.0 percent in late 2009) fell from 8.7 percent in the last quarter of 2011 to 8.3 percent in the first quarter of this year and then edged downward to 8.2 percent in the second quarter. The number of employees on nonfarm payrolls rose, on average, by more than 200,000 per month in the first quarter of 2012—a little faster than the pace in 2011—but then increased by roughly 70,000 per month in the second quarter. That pattern is partially attributable to an unusually mild winter, but conditions in the labor market in the second quarter were weak even after accounting for that effect. With output expected to grow at an average annual rate of 2.2 percent in the second half of 2012, CBO projects that the number of employees on nonfarm payrolls will increase at an average rate of not quite 100,000 per month in the second half and that the unemployment rate will remain steady.

Another measure of weakness in the labor market is the historically high share of unemployment accounted for by the long-term unemployed—people who have been seeking work for more than 26 consecutive weeks. That share has topped 40 percent for the past two and a half years (see Figure 2-5). By comparison, that share was about 24 percent following the severe recession of 1981–1982. CBO expects that the share of unemployment

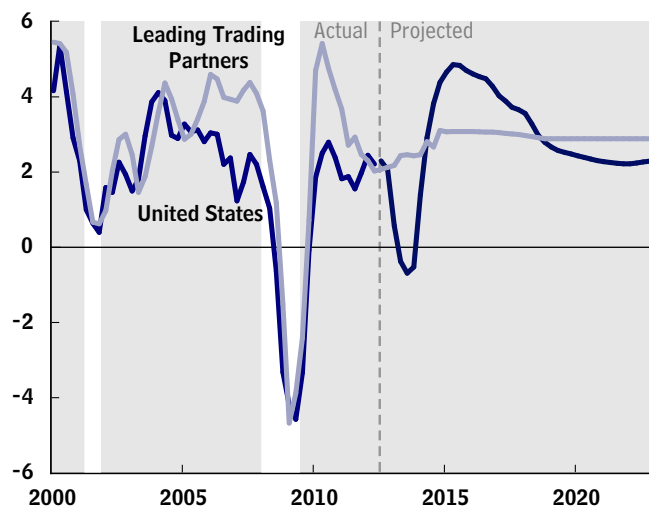
5. In CBO's view, about 1 percentage point of the net rise of 3.3 percentage points in the unemployment rate between the onset of the recession and July 2012 reflects structural factors (such as the difficulty the long-term unemployed face in finding jobs) that are associated with the recession but that are not directly linked to current aggregate demand. See the discussion of structural unemployment in Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2012 to 2022* (January 2012), pp. 35–36. For a discussion of the weak labor market of the past few years, see Congressional Budget Office, *Understanding and Responding to Persistently High Unemployment* (February 2012).



**Figure 2-4.**

## Economic Growth in the United States and Among Its Leading Trading Partners

(Percentage change from same quarter of previous year)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis; Consensus Forecasts.

Notes: Growth among the leading trading partners is calculated using a weighted average of the rates of growth of their real (inflation-adjusted) gross domestic products. The weights are their shares of U.S. exports, and the trading partners are Australia, Brazil, Canada, China, Hong Kong, Japan, Mexico, Singapore, South Korea, Switzerland, Taiwan, the United Kingdom, and countries in the euro zone.

Data are quarterly and are plotted through the fourth quarter of 2022. Actual data for the United States incorporate the July 2012 revisions to the national income and product accounts, which are plotted through the second quarter of 2012. Projections for the United States are based on data issued before the revisions. The last date of actual data varies for the other countries.

accounted for by the long-term unemployed will remain high for the next several years.

The unemployment rate would be even higher if participation in the labor force had not declined so much over the past few years. Participation fell from 66 percent in 2007 to an average of 63¾ percent in the first half of 2012, an unusually large decline over such a short period. (The rate of participation in the labor force describes the share of the civilian noninstitutionalized population age 16 or older that is either working or actively seeking

work.) About half of that decline reflects the movement of the baby-boom generation into retirement; much of the rest is attributable to the economic downturn and to weak growth in output during the recovery. Still, even after accounting for both factors, the decline in participation since the recession began has been surprisingly large. During the first half of this year, the participation rate has shown no clear trend, and CBO expects that it will be little changed for the rest of the year.

The weak demand for labor has restrained the growth of labor compensation (the combination of wages and benefits workers receive) over the past several years, but that growth picked up during the first half of this year. Real labor compensation grew at an annual rate of 3.5 percent in the first half of 2012, but real compensation remained slightly below its value in late 2007, just before the recession began. CBO expects real compensation to grow at a similar rate during the second half of the year, reflecting subdued growth in employment, a slight pickup in the rate of growth in hourly wages, and a slower rate of inflation in consumer prices.

### Inflation

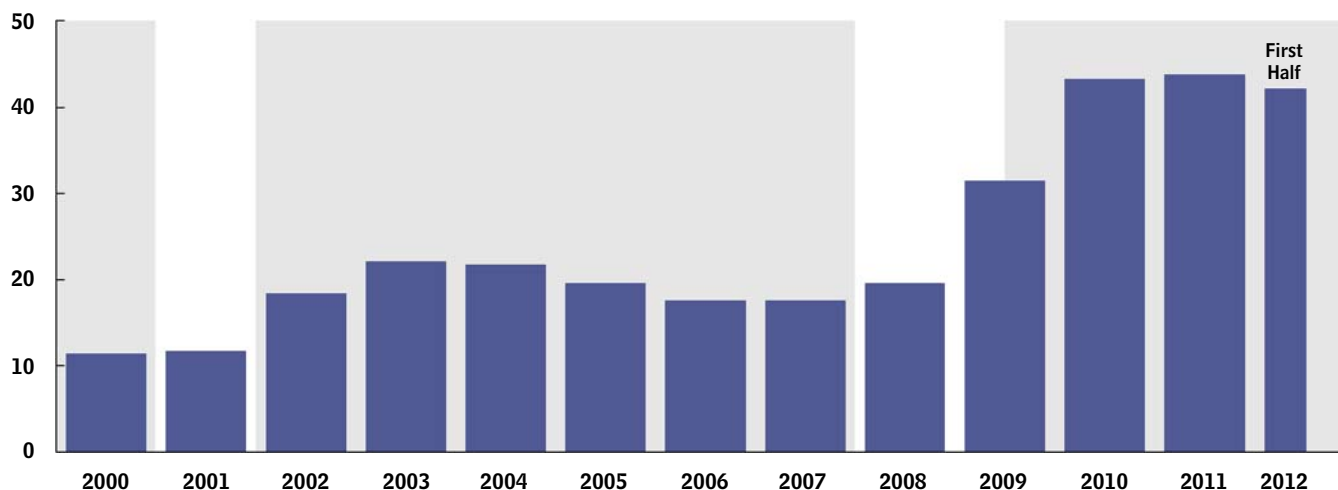
Inflationary pressures remain subdued, as the average rate of inflation in consumer prices during the year ending in the second quarter was less than 2 percent (see Figure 2-6). On a quarter-to-quarter basis, the PCE price index rose at an annual rate of 2.5 percent in the first quarter but just 0.7 percent in the second quarter, largely because of fluctuations in gasoline prices, which increased substantially during the winter months but then fell significantly during the spring. The core PCE price index—which excludes food and energy—also grew more quickly in the first quarter than in the second; on average, for the first half, it rose at an annual rate of about 2.0 percent, up slightly from its average rate of increase in 2011.

In CBO's forecast, which was finalized in early July, the rate of inflation in consumer prices falls somewhat in the second half of 2012. Core PCE inflation slows, averaging 1.8 percent (at an annual rate) in the second half. Inflation measured by the overall PCE index slows even more. The rates of inflation in both the consumer price index for all urban consumers (CPI-U) and its core version show similar patterns. However, recent increases in the prices of some agricultural commodities and crude oil suggest that food and energy might be sources of modest



**Figure 2-5.****Long-Term Unemployment**

(Percent)



Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Notes: Data show the percentage of unemployed U.S. workers who have been unemployed for longer than 26 consecutive weeks.

Data are annual through 2011. The value for 2012 is the average percentage for the first half of the year.

inflationary pressure for the remainder of the year (with little or no effect on core inflation).

The core rate of inflation in 2011 and in the first half of 2012 was somewhat higher than CBO expected, given the large amount of excess productive capacity in the economy. Several temporary influences, including disruptions in the production of motor vehicles and automotive parts in Japan, contributed to the higher-than-anticipated inflation in 2011. Still, some research suggests a more enduring factor may be at work: Because excess capacity has persisted for an extended time, its influence on inflation may have diminished.<sup>6</sup>

6. See James H. Stock and Mark W. Watson, “Modeling Inflation After the Crisis,” in *Macroeconomic Challenges: The Decade Ahead* (proceedings of the 2010 economic policy symposium, Federal Reserve Bank of Kansas City, August 2010), [www.kc.frb.org/publications/research/escp/escp-2010.cfm](http://www.kc.frb.org/publications/research/escp/escp-2010.cfm). Although the influence of excess capacity may have diminished, people’s expectations about the future rate of inflation, another important determinant of inflation, seem to be anchored at about 2 percent, as suggested by the difference between yields on nominal and inflation-indexed Treasury bonds. Those expectations affect inflation because they influence businesses’ decisions about price-setting.

**Monetary Policy and Interest Rates**

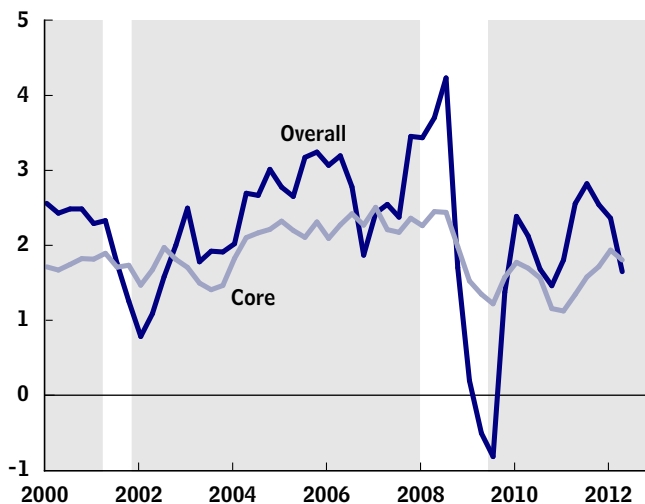
CBO expects monetary policymakers to work to keep short- and long-term interest rates low, not only for the rest of the year but also over the next few years. Short-term interest rates remained near zero in the first half of 2012, and they are likely to stay there for the rest of the year. Longer-term rates declined to extremely low levels in the first half of this year and have remained quite low, reflecting several factors: investors’ expectation that the U.S. economy will remain below its potential for quite a few years, investors’ concern over the banking and fiscal problems in Europe, and the Federal Reserve’s plan to continue purchasing long-term Treasury securities (under the maturity extension program, also known as Operation Twist).

**The Economic Outlook for 2013 to 2017**

CBO’s economic projections for next year are heavily influenced by the fiscal policy specified by current law. As discussed in detail in Chapter 1, significant fiscal tightening resulting from a combination of tax increases and spending cuts is set to begin to take effect in January. If that tightening occurs, output will decline in the first half

**Figure 2-6.****Inflation**

(Percentage change in prices from same quarter of previous year)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: The overall inflation rate is based on the price index for personal consumption expenditures; the core rate excludes prices for food and energy.

Data are quarterly and are plotted through the second quarter of 2012.

of next year and then rise only modestly in the second half, in CBO's view.

The agency's projections show the economy growing more strongly after next year and returning to its potential in 2018. Economic output would be greater and unemployment lower in the next few years if some or all of the fiscal tightening scheduled under current law was removed. However, CBO estimates that, even if all of the fiscal tightening was removed, the economy would remain below its potential and the unemployment rate would remain relatively high for some time. Moreover, the economy would suffer in the long term because of the higher federal debt.

### The Economy Under Current Law from 2013 to 2017

Under current law, CBO projects a much smaller budget deficit in fiscal year 2013 than in 2012. By CBO's

estimates, the deficit in fiscal year 2013 will come to \$641 billion, \$487 billion less than the shortfall in 2012.<sup>7</sup> A major factor in that difference is the recent or impending expiration of many of the temporary changes in tax and spending policies that have been enacted or extended during the past few years. Some new policies that would reduce the budget deficit also are scheduled to take effect in January (see Box 2-1). Altogether, under current law, the reduction in the deficit between 2012 and 2013 will be the largest (measured as a share of GDP) since 1969.

Reflecting that sudden and sizable fiscal tightening, CBO projects that real GDP will contract by 0.5 percent in 2013 after growing by 2.1 percent in 2012 (as measured by the change from the fourth quarter of the previous year; see Table 2-1). Real GDP is projected to fall at an annual rate of 2.9 percent in the first half of next year and then to rise at an annual rate of 1.9 percent in the second half. In light of the way it has identified past recessions, the National Bureau of Economic Research would probably view such a contraction in output in the first half of 2013 as a recession (similar in magnitude to the recession in the early 1990s).<sup>8</sup>

The contraction of the economy will cause employment to fall and the unemployment rate to rise to 9.1 percent in the fourth quarter of 2013, CBO projects (see Figure 2-7 on page 36). The large amount of unused resources in the economy will keep the rate of inflation and interest rates low. In CBO's forecast, the interest rate on 3-month Treasury bills remains near zero through 2013 and the rate on 10-year Treasury notes remains below 2.0 percent until the fourth quarter of 2013. CBO anticipates that the economic slowdown brought about by fiscal tightening, coupled with a lack of inflationary pressure, will prompt the Federal Reserve to embark on another round

7. The estimated reduction in the deficit of \$487 billion corresponds to the estimated "total change" of \$560 billion in Table 1 of Congressional Budget Office, *Economic Effects of Reducing the Fiscal Restraint That Is Scheduled to Occur in 2013* (May 2012). The estimated amount has been revised in keeping with changes in current law, the economic forecast, and other factors.

8. See National Bureau of Economic Research, "The NBER's Business Cycle Dating Procedure: Frequently Asked Questions," (accessed August 11, 2012), [www.nber.org/cycles/recessions\\_faq.html](http://www.nber.org/cycles/recessions_faq.html).

**Table 2-1.****CBO's Economic Projections for Calendar Years 2012 to 2022**

	Forecast		Projected Annual Average	
	2012	2013	2014–2017	2018–2022
<b>Fourth Quarter to Fourth Quarter (Percentage change)</b>				
Gross Domestic Product				
Real	2.1	-0.5	4.3	2.4
Nominal	3.9	0.8	6.2	4.5
Inflation				
PCE price index	1.4	1.4	1.8	2.0
Core PCE price index <sup>a</sup>	1.9	1.5	1.8	2.0
Consumer price index <sup>b</sup>	1.3	1.6	2.1	2.3
Core consumer price index <sup>a</sup>	2.1	1.7	2.0	2.2
GDP price index	1.8	1.4	1.8	2.0
Employment Cost Index <sup>c</sup>	2.6	2.4	4.2	3.8
<b>Fourth-Quarter Level (Percent)</b>				
Unemployment Rate	8.2	9.1	5.7 <sup>d</sup>	5.3 <sup>e</sup>
<b>Year to Year (Percentage change)</b>				
Gross Domestic Product				
Real	2.1	-0.3	4.0	2.5
Nominal	3.9	1.3	5.9	4.6
Inflation				
PCE price index	1.7	1.3	1.8	2.0
Core PCE price index <sup>a</sup>	1.9	1.7	1.8	2.0
Consumer price index <sup>b</sup>	1.8	1.4	2.0	2.3
Core consumer price index <sup>a</sup>	2.1	1.9	2.0	2.2
GDP price index	1.8	1.6	1.8	2.0
Employment Cost Index <sup>c</sup>	2.2	2.5	4.0	3.9
<b>Calendar Year Average</b>				
Unemployment Rate (Percent)	8.2	8.8	7.3	5.4
Interest Rates (Percent)				
Three-month Treasury bills	0.1	0.1	1.3	3.7
Ten-year Treasury notes	1.8	1.8	3.4	5.0
Tax Bases (Percentage of GDP)				
Wages and salaries	44.1	44.0	44.4	45.3
Domestic economic profits	10.4	9.0	9.5	7.8

Source: Congressional Budget Office.

Notes: Economic projections for each year from 2012 to 2022 appear in Appendix B.

PCE = personal consumption expenditures; GDP = gross domestic product.

- a. Excludes prices for food and energy.
- b. The consumer price index for all urban consumers.
- c. The employment cost index for wages and salaries of workers in private industry.
- d. Value for 2017.
- e. Value for 2022.

**Box 2-1.****Fiscal Policy Under Current Law in 2013**

Major changes in tax and spending policies under current law will help reduce the deficit to \$641 billion in fiscal year 2013, \$487 billion less than the shortfall in 2012, according to the projections of the Congressional Budget Office (CBO). The major changes in tax policies include the following:

- Provisions of the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 (Public Law 111-312) that limited the reach of the alternative minimum tax expired on December 31, 2011.<sup>1</sup> The resulting increase in tax liabilities for 2012 will not be paid by most taxpayers until calendar year 2013, when they file their 2012 returns. Other provisions of that law extended the lower tax rates and the expanded credits and deductions originally enacted in the Economic Growth and Tax Relief Reconciliation Act of 2001 (P.L. 107-16), the Jobs and Growth Tax Relief Reconciliation Act of 2003

1. The alternative minimum tax is intended to curtail the extent to which higher-income people can reduce their tax liability through the use of preferences in the tax code.

(P.L. 108-27), and the American Recovery and Reinvestment Act of 2009 (P.L. 111-5). Those provisions are set to expire on December 31, 2012. The increase in individual income taxes will affect tax payments starting in calendar year 2013, when withholding schedules will reflect the higher rates. All in all, those changes in policy scheduled to occur under current law will increase federal revenues by about \$225 billion in fiscal year 2013, compared with 2012, CBO projects.<sup>2</sup>

- The Middle Class Tax Relief and Job Creation Act of 2012 (P.L. 112-96) extended through December 31, 2012, the 2 percentage-point cut in the payroll tax that first went into effect in January 2011. The expiration of that provision will raise revenues by about \$85 billion in fiscal year 2013.

2. The increase in revenues from 2012 to 2013 from the expiration of the tax provisions in the baseline does not equal the revenue loss in 2013 from extending the provisions (shown in Table 1-5 on page 18). The impact in 2013 of extending the provisions includes the effects of retroactively indexing the alternative minimum tax for inflation starting in 2012 and extending other expiring tax provisions.

Continued

of large-scale asset purchases by early 2013, thus helping to hold down the rate on 10-year Treasury notes.<sup>9</sup>

9. Because of the severity of the financial crisis and subsequent economic downturn, the Federal Reserve has used asset purchases and other nontraditional means to supplement its use of the federal funds rate to support economic activity. Between late 2008 and early 2010, for example, the Federal Reserve purchased about \$1.25 trillion in mortgage-backed securities guaranteed by Fannie Mae, Freddie Mac, and Ginnie Mae; \$175 billion in debt securities issued by those agencies; and \$300 billion in Treasury securities with maturities of more than one year. For a discussion of the nontraditional means and their effects on the economy, see Congressional Budget Office, *The Budgetary Impact and Subsidy Costs of the Federal Reserve's Actions During the Financial Crisis* (May 2010); and Joseph Gagnon and others, *Large-Scale Asset Purchases by the Federal Reserve: Did They Work?* Staff Report 441 (Federal Reserve Bank of New York, March 2010), [www.newyorkfed.org/research/staff\\_reports/sr441.html](http://www.newyorkfed.org/research/staff_reports/sr441.html).

CBO projects a resumption in the yearly growth of real GDP after 2013, as the economy adjusts to the path of smaller budget deficits. According to CBO's forecast, economic growth will be brisk in 2014 and 2015, pushing output back toward its potential. As a result, the unemployment rate is estimated to fall back to 8.4 percent in the fourth quarter of 2014 and then to decline gradually to 5.7 percent in the fourth quarter of 2017.

Between 2013 and 2017, CBO projects, the rate of inflation will rise slowly toward 2 percent, as measured by the PCE price index and the corresponding core index. That projection is consistent with the Federal Reserve's longer-run goal of 2 percent for inflation in the PCE price index. The CPI-U and its core version are generally expected to increase a little more rapidly than their PCE counterparts (reflecting both the differences in methods

**Box 2-1.****Continued****Fiscal Policy Under Current Law in 2013**

- Various other provisions that expired at the end of 2011 or that are slated to expire by the end of this year will affect revenues in 2013. The most significant of that group is the scheduled expiration this December of rules that permit businesses to partially expense investment property. By CBO's estimation, those changes will boost revenues by about \$65 billion in fiscal year 2013 relative to 2012.
- Some tax provisions of the Affordable Care Act, including an increase in the tax rates on earnings and investment income for high-income taxpayers, are scheduled to take effect in January 2013.<sup>3</sup> Those provisions will raise revenues in fiscal year 2013 by about \$18 billion.
- Provisions of the Budget Control Act of 2011 (P.L. 112-25) that established automatic enforcement procedures designed to restrain discretionary and mandatory spending are set to take effect in January 2013. CBO estimates that the reductions imposed during fiscal year 2013 will lower outlays by \$54 billion in that year (and by another \$918 billion from 2014 through 2022).
- Emergency unemployment compensation, which was extended in the Middle Class Tax Relief and Job Creation Act of 2012, expires after December 2012. As a result, outlays for unemployment compensation will be smaller in 2013 than 2012, despite a rising unemployment rate. On net, benefits will be \$34 billion lower in 2013 than they are expected to be in 2012.
- Medicare's payment rates for physicians will drop by 27 percent in January 2013, CBO estimates. That change will lower spending by \$10 billion in fiscal year 2013.

The major changes in spending policies include the following:

3. The Affordable Care Act comprises the Patient Protection and Affordable Care Act (P.L. 111-148) and the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152).

Other policies, economic developments, and budgetary trends also affect the change in the budget deficit from 2012 to 2013. For more details, see Chapter 1.

used to calculate those indexes and the larger role of housing rents in the CPI-U index). CBO anticipates that, starting in late 2015, as the economy strengthens, the Federal Reserve will raise the federal funds rate; as a result, the interest rate on 3-month Treasury bills will increase from 0.2 percent in the fourth quarter of 2013 to 3.4 percent in the fourth quarter of 2017. The rate on 10-year Treasury notes is projected to increase from 2.0 percent in the fourth quarter of 2013 to 4.6 percent in the fourth quarter of 2017.

### **The Economy Under an Alternative Fiscal Scenario**

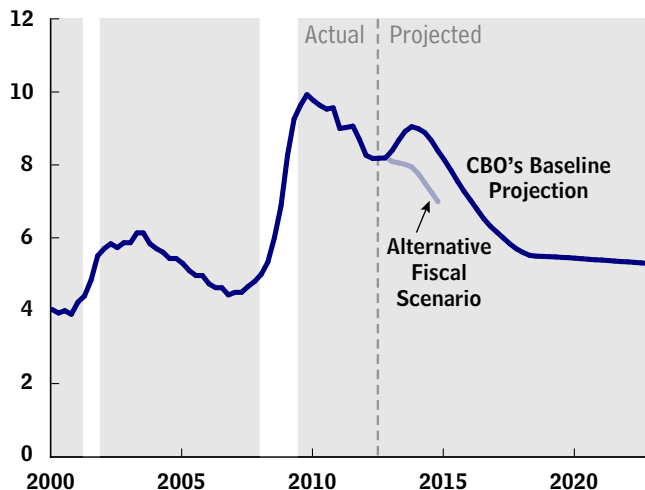
Future fiscal policy is likely to differ from that embodied in current law. To illustrate how some changes in law would affect the economy, CBO has examined the economic outcomes that would ensue from an alternative path for fiscal policy. That path is not a prediction nor is

it a policy recommendation; it is simply one of many possibilities, in this case representing the continuation of many long-standing policies.

The policies incorporated in this alternative fiscal scenario would reduce, but not eliminate, fiscal tightening in 2013. Those policies include extending all expiring tax provisions other than the payroll tax reduction; indexing the alternative minimum tax for inflation after 2011 (starting at the 2011 exemption amount); holding Medicare's payment rates for physicians' services constant at their current level; and canceling the automatic spending reductions required by the Budget Control Act, although it is assumed that the original caps on discretionary appropriations would remain in place. This scenario preserves the expiration next year of both the cut in payroll taxes and the extension of unemployment benefits,

**Figure 2-7.****Unemployment Rate**

(Percent)



Sources: Congressional Budget Office; Department of Labor, Bureau of Labor Statistics.

Notes: The unemployment rate is a measure of the number of jobless people who are available for work and are actively seeking jobs, expressed as a percentage of the labor force. Under the alternative fiscal scenario, some changes specified in current law would not occur and certain current policies would continue instead.

Data are quarterly. Actual data are plotted through the second quarter of 2012. Baseline projections are plotted through 2022; projections from the alternative fiscal scenario are CBO's central estimates and are plotted through the fourth quarter of 2014.

which are significant sources of fiscal tightening. Budget deficits would exceed those in CBO's baseline by 2.5 percent of GDP in fiscal year 2013 and by 3.8 percent of GDP, on average, over the 2013–2022 period (see Table 1-6 on page 22).

That set of alternative policies would lead to economic outcomes that are significantly different from those resulting from the policies embodied in current law. Real GDP would be higher in the first few years of the projection period than in CBO's baseline economic forecast, primarily because of increased aggregate demand. In 2013, for example, growth in real GDP would be 1.7 percent, compared with -0.5 percent under the baseline forecast.<sup>10</sup> That figure represents CBO's central estimate, which corresponds to the assumption that the

values that describe key parameters of economic behavior (in particular, the extent to which lower federal taxes and higher federal spending boost aggregate demand in the short term) equal the midpoints of the ranges used by CBO.<sup>11</sup> The full ranges that CBO uses for those parameters suggest that growth in real GDP in 2013 would lie between 0.1 percent and 3.3 percent (see Table 2-2). Under that scenario, the unemployment rate is projected to be 8.0 percent in the fourth quarter of 2013 (compared with 9.1 percent under current law), with a range of 7.3 percent to 8.7 percent, and 7.0 percent in the fourth quarter of 2014 (compared with 8.4 percent under current law), with a range of 6.0 percent to 8.0 percent (see Figure 2-7). However, as discussed below, CBO estimates that, by the end of the 10-year projection period, real output and income would be lower under the alternative policies than under current law.

**Some Uncertainties in the Economic Outlook**

Economic forecasts are always uncertain, but the uncertainty surrounding CBO's forecast through 2017 is especially great because the current business cycle has been unusual in a variety of ways. Following the agency's usual practice, CBO constructed its current forecast to lie in the middle of the distribution of possible future outcomes for the economy, given the fiscal policies that are embodied in current law. Even putting aside the significant uncertainties regarding fiscal policy, actual outcomes will undoubtedly differ from CBO's forecast for various reasons.

10. The difference between projected real GDP growth in 2013 under the alternative fiscal scenario (1.7 percent) and current law (-0.5 percent) is larger than the corresponding difference (2.1 percent compared with 0.5 percent) in CBO's May 2012 report, *Economic Effects of Reducing the Fiscal Restraint That Is Scheduled to Occur in 2013*. The larger estimated gap between the growth rates owes primarily to different assumptions about the timing of policy changes in the alternative fiscal scenario. For the previous estimate, CBO assumed that the changes would be enacted in time to boost GDP growth in 2012 by about 0.5 percentage points; for the current estimate, CBO assumed that the changes would occur too late to boost growth in 2012, which shifts part of the positive near-term effect on growth from 2012 to 2013.

11. For a discussion of CBO's approach to analyzing the short-term effects of fiscal policy, see Felix Reichling and Charles Whalen, *Assessing the Short-Term Effects on Output of Changes in Federal Fiscal Policies*, Congressional Budget Office Working Paper 2012-08 (May 2012).

**Table 2-2.**

## Economic Effects of Policies in CBO's Baseline and Under an Alternative Fiscal Scenario

(Selected calendar years)

	2013	2022
Growth in Real GDP (Fourth quarter to fourth quarter, percentage change)		
CBO's August 2012 baseline	-0.5	2.3
Alternative fiscal scenario		
Central estimate	1.7	2.1
Range	0.1 to 3.3	2.0 to 2.3
Unemployment Rate (Fourth-quarter level, in percent)		
CBO's August 2012 baseline	9.1	5.3
Alternative fiscal scenario		
Central estimate	8.0	5.3
Range	7.3 to 8.7	5.3 to 5.3
Interest Rate on Three-Month Treasury Bills (Percent)		
CBO's August 2012 baseline	0.2	3.8
Alternative fiscal scenario		
Central estimate	0.2	4.2
Range	0.2 to 0.2	3.9 to 4.5
Interest Rate on Ten-Year Treasury Notes (Percent)		
CBO's August 2012 baseline	2.0	5.0
Alternative fiscal scenario		
Central estimate	2.1	5.4
Range	2.0 to 2.2	5.1 to 5.7
<b>Memorandum:</b>		
Real GDP (Percentage difference between fourth-quarter levels for the alternative fiscal scenario and the baseline)		
Central estimate	2.2	-0.4
Range	0.6 to 3.9	-2.0 to 2.1
Real GNP (Percentage difference between fourth-quarter levels for the alternative fiscal scenario and the baseline) <sup>a</sup>		
Central estimate	2.1	-1.7
Range	0.6 to 3.7	-3.5 to 0.9

Source: Congressional Budget Office.

Notes: The alternative fiscal scenario incorporates a set of policies that would reduce fiscal tightening in 2013 but not eliminate it. Those policies include extending the expiring tax provisions (other than the payroll tax reduction); indexing the alternative minimum tax for inflation after 2011 (starting at the 2011 exemption amount); holding Medicare's payment rates for physicians' services constant at their current level; and canceling the automatic spending reductions required by the Budget Control Act (although the original caps on discretionary appropriations in that law are assumed to remain in place). This scenario maintains the expiration of both the cut in payroll taxes and the extension of unemployment benefits, which are significant sources of fiscal tightening next year.

Ranges of estimated effects are shown for the alternative fiscal scenario to reflect the uncertainty that exists about many of the economic relationships that are important in the models used to calculate those effects.

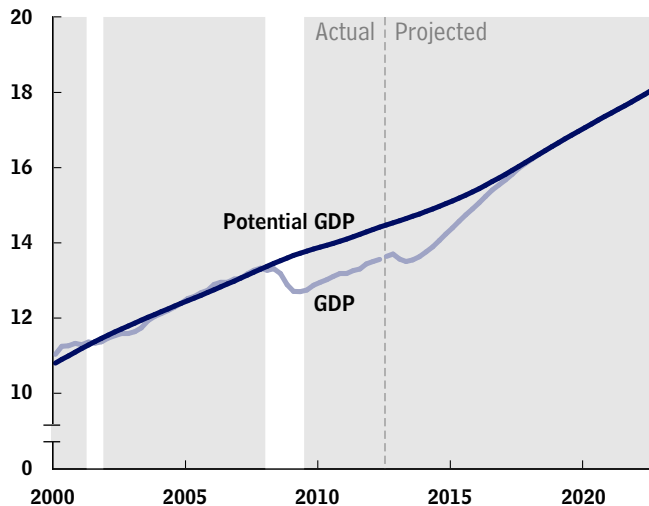
GDP = gross domestic product; GNP = gross national product.

- a. Changes in GNP exclude foreigners' earnings on investments in the domestic economy but include U.S. residents' earnings overseas and are therefore a better measure of the effects on U.S. residents' income than are changes in GDP.



**Figure 2-8.****GDP and Potential GDP**

(Trillions of 2005 dollars)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Potential gross domestic product (GDP) is CBO's estimate of the output the economy would produce with a high rate of use of its capital and labor resources.

Data are quarterly. Actual data, which are plotted through the second quarter of 2012, incorporate the July 2012 revisions to the national income and product accounts. Projections, which are plotted through the fourth quarter of 2022, are based on data issued before the revisions.

For example, the economy could grow considerably faster than CBO has forecast if the forces that have restrained the recovery fade more rapidly than the agency anticipates. A faster pace of household formation, combined with a significant easing of borrowing constraints in mortgage markets, for example, could support stronger residential investment and a rapid return to rising house prices. Households' increased wealth could then buttress consumer spending. Moreover, improved access to mortgage markets would allow more borrowers to refinance, taking advantage of historically low mortgage rates and freeing their cash for consumer spending. Those conditions could, in turn, speed the growth of employment and boost businesses' spending on structures, equipment, and software, potentially leading to a self-reinforcing cycle of increased spending, hiring, and income generation.

Another possible catalyst for unexpected increases in spending and economic growth would be rapid

improvement in businesses' confidence, which could quicken the pace of business investment and hiring, especially because many corporations now have large cash reserves. Those conditions could then increase wages and consumer spending, encouraging businesses to undertake still more spending and hiring.

Outcomes that are considerably bleaker than those in CBO's forecast also are possible, however. A significant worsening of the banking and fiscal problems in Europe, for example, could lead to further turmoil in international financial markets that could spill over to U.S. financial markets—lowering wealth, severely constraining the availability of credit, reducing hiring, and raising unemployment. Those conditions could trigger a self-reinforcing downward spiral, weakening the growth of households' income and diminishing consumers' and businesses' confidence and, in turn, curtailing households' and businesses' spending and therefore reducing the need to hire new workers.

Other events also could lead to outcomes worse than CBO projects. For example, a surge in oil prices could raise the price of gasoline, thus decreasing the demand for other goods and services. Those conditions could discourage businesses from investing and hiring, possibly triggering another downward spiral of lower spending, confidence, and employment.

## The Economic Outlook for 2018 to 2022

CBO's assessment of the outlook after 2017, when real GDP is projected to equal its potential, is based not on estimates of cyclical movements in the economy but on projections of trends in the factors that underlie potential output: the size of the labor force, the stock of productive capital, and the productivity of those factors. Those projections reflect predicted negative effects from the recession of 2007–2009 and the ensuing slow recovery (see Box 2-2). They also reflect the impact of current-law fiscal policy, which implies lower deficits and thus more domestic resources available for private investment. Finally, the trend in output incorporates the expectation that the Federal Reserve will keep inflation low and stable. In CBO's projections, the gap between actual and potential GDP closes in 2018 (see Figure 2-8).



**Table 2-3.****Key Assumptions in CBO's Projection of Potential GDP**

(By calendar year, in percent)

	Average Annual Growth						Projected Average Annual Growth		
	1950-1973	1974-1981	1982-1990	1991-2001	2002-2011	Total, 1950-2011	2012-2017	2018-2022	Total, 2012-2022
<b>Overall Economy</b>									
Potential GDP	3.9	3.3	3.0	3.2	2.3	3.3	2.0	2.4	2.2
Potential Labor Force	1.6	2.5	1.6	1.3	0.9	1.5	0.5	0.5	0.5
Potential Labor Productivity <sup>a</sup>	2.3	0.8	1.4	1.9	1.4	1.8	1.5	1.9	1.7
<b>Nonfarm Business Sector</b>									
Potential GDP	4.0	3.6	3.2	3.6	2.5	3.5	2.4	2.8	2.6
Potential Hours Worked	1.4	2.4	1.6	1.2	0.5	1.3	0.4	0.5	0.4
Capital Services	3.8	4.3	4.1	4.7	2.4	3.9	3.1	3.9	3.5
Potential TFP	1.9	0.7	0.8	1.3	1.4	1.4	1.2	1.3	1.2
Potential TFP excluding adjustments	1.9	0.7	0.8	1.3	1.3	1.4	1.3	1.3	1.3
Total adjustments (Percentage points)	0	0	0	*	0.2	*	-0.1	0	**
Effects of the recession <sup>b</sup>	0	0	0	0	**	**	-0.1	0	**
Temporary adjustment <sup>c</sup>	0	0	0	*	0.2	*	0	0	0
Contributions to the Growth of Potential GDP (Percentage points)									
Potential hours worked	0.9	1.7	1.1	0.8	0.3	0.9	0.3	0.3	0.3
Capital input	1.2	1.3	1.2	1.4	0.7	1.2	0.9	1.2	1.1
Potential TFP	1.9	0.7	0.8	1.3	1.4	1.4	1.2	1.3	1.2
Total Contributions	4.0	3.6	3.2	3.5	2.5	3.5	2.4	2.8	2.6
Potential Labor Productivity <sup>d</sup>	2.6	1.2	1.6	2.3	2.0	2.1	2.0	2.3	2.2

Source: Congressional Budget Office.

Note: GDP = gross domestic product; TFP = total factor productivity; \* = between zero and 0.05 percentage points;

\*\* = between -0.05 percentage points and zero.

- The ratio of potential GDP to the potential labor force.
- An adjustment to reflect the effects of the recession on potential GDP beyond its impact on capital accumulation and labor supply.
- An adjustment for the unusually rapid growth of TFP between 2001 and 2003.
- The estimated trend in the ratio of potential GDP to potential hours worked in the nonfarm business sector.

**Potential Output**

Potential GDP is projected to grow at an average annual rate of 2.4 percent between 2018 and 2022 and by an average of 2.2 percent for the entire 2012–2022 period (see Table 2-3). Those rates are substantially below the average rate since 1950 of 3.3 percent, largely because growth in the potential labor force (the labor force adjusted for variations caused by the business cycle) is expected to slow from its average annual rate since 1950

of 1.5 percent to 0.5 percent over the projection period, mostly because of the steady rise in baby boomers' retirements. CBO also expects the growth of potential capital services (the flow of services available for production from the stock of capital goods) and the growth of potential total factor productivity to be slightly slower over the coming decade than they have been, on average, since 1950.

**Box 2-2.****Lasting Effects of the Recent Recession and the Ensuing Economic Weakness on Potential Output**

The financial crisis that began in 2007 and the decline in house prices that began a year earlier had a sharp impact on the U.S. economy, nearly freezing credit markets and pushing the economy into its most severe recession since World War II. International experience shows that downturns following such crises tend to last longer than other downturns do and that the return to high employment tends to be slower.<sup>1</sup> Research also shows that such recessions—even more than other types of recessions—dampen investment, raise the rate and average duration of unemployment, and reduce the number of hours that employees work. Those recessions tend not only to reduce output below what it would have been otherwise but also to reduce the economy's potential to produce output even after all resources are productively reemployed.

The most recent recession and the ensuing economic weakness are reducing potential output through all three of its determinants: the potential supply of labor, the quantity of productive capital, and potential total factor productivity (average inflation-adjusted output per unit of combined labor and capital services). Combining the effects on all of those determinants, the Congressional Budget Office (CBO) estimates that potential output will be about 1.5 percent lower in 2022 than it would have been without the recession and the ensuing economic weakness.<sup>2</sup> The smaller labor supply, smaller capital

stock, and lower total factor productivity each account for about 0.5 percentage points of that reduction.<sup>3</sup>

CBO expects that the weak economic conditions of the past several years and next several years will have lingering negative effects on the labor market. The shortage of jobs has led some people to retire earlier than they might have otherwise or induced them to leave the labor force in other ways (by applying for and receiving disability benefits, for instance).<sup>4</sup> In addition, the persistently high rate of long-term unemployment will make it harder for some people to find jobs because people who have been unemployed for a long time can experience a degradation of skills and an eroded connection to the workforce.

1. See, for example, Carmen M. Reinhart and Kenneth S. Rogoff, "The Aftermath of Financial Crises," *American Economic Review*, vol. 99, no. 2 (May 2009), pp. 466–472. For additional research on the topic, see Michael D. Bordo and Joseph G. Haubrich, *Deep Recessions, Fast Recoveries, and Financial Crises: Evidence from the American Record*, Working Paper 12-14 (Federal Reserve Bank of Cleveland, June 2012), [www.clevelandfed.org/research/research\\_publication.cfm?id=35](http://www.clevelandfed.org/research/research_publication.cfm?id=35).

2. Since the recession that began in December 2007, CBO has revised its long-term projection of potential output considerably. Although the projection period in 2007 ended in 2017, an extrapolation of trends suggests that CBO has revised its estimate of potential output in 2022 downward by roughly 7 percent—a good deal more than the 1.5 percent reduction attributed to the recession and ensuing economic weakness. The remainder of that revision is the result of several other factors. The bulk results from CBO's reassessment of long-term trends that were already under way before the recession. To a lesser extent, the revision is attributable to revisions of historical data, changes in CBO's methods for estimating potential output, and higher federal debt crowding out additional capital investment in the long term.

3. CBO has revised its estimate since January, increasing the negative effect from about 1¼ percent to 1½ percent of potential output in 2022. The revision reflects a reassessment of the lasting negative effects of the recession and ensuing economic weakness on individuals' decisions about whether to participate in the labor force.

4. Applications for disability benefits tend to rise in recessions. See Congressional Budget Office, *Losing a Job During a Recession* (April 2010).

Continued

**Box 2-2.****Continued****Lasting Effects of the Recent Recession and the Ensuing Economic Weakness on Potential Output**

Those factors are incorporated into CBO's economic forecast. As a result, the projections for the potential labor force, potential employment, and potential hours worked through 2022 are lower than CBO would have forecast in the absence of those weak economic conditions, and the projected unemployment rate is higher. The smaller potential labor force, in turn, will reduce investment in productive capital, as businesses need to provide less capital to their smaller workforces.

In CBO's assessment, the recent recession and ensuing weakness in the economy will have a direct and lasting effect on the amount of productive capital, even apart from the influence on capital of lower potential labor supply and total factor productivity. Investment plunged during the recession because of a spike in financing costs and a decline in demand for goods and services. Although investment is currently growing strongly, CBO projects a drop-off again for 2013. The agency anticipates a resumption of strong growth in investment after 2013, but it does not expect all of the forgone capital investment to have been recovered even a decade from now, particularly given businesses' diminished need for capital in light of the lasting negative effects on the number of workers and their productivity.

CBO projects that the recession will reduce the growth of potential total factor productivity over the next several years by delaying the reallocation of

resources to their most productive uses, slowing the rate at which workers gain new skills as technologies evolve, and curtailing businesses' spending on research and development. To account for such effects, CBO has trimmed its estimate of the growth rate of potential total factor productivity between 2010 and 2014 by a small amount (0.1 percentage point a year), which lowers the projection for total factor productivity thereafter as well. As with the reduction in the potential labor force, lower potential total factor productivity will reduce investment.

Researchers who have studied past recessions induced by financial crises have not arrived at a consensus about the magnitude of those effects on potential output. CBO's estimate for the current U.S. experience is within the range estimated by other analysts.<sup>5</sup>

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5. See, for example, European Commission, Directorate-General for Economic and Financial Affairs, *Impact of the Current Economic and Financial Crisis on Potential Output*, Occasional Paper 49 (European Commission, June 2009); Davide Furceri and Annabelle Mourougane, *The Effect of Financial Crises on Potential Growth: New Empirical Evidence from OECD Countries*, Economics Department Working Paper 699 (Organisation for Economic Co-operation and Development, May 2009); and John H. Boyd, Sungkyu Kwak, and Bruce D. Smith, "The Real Output Losses Associated with Modern Banking Crises," *Journal of Money, Credit, and Banking*, vol. 37, no. 6 (December 2005), pp. 977–999.

**Unemployment, Inflation, and Interest Rates**

In CBO's projections for the five years from 2018 to 2022, the unemployment rate averages 5.4 percent—consistent with the agency's estimate of the natural rate of unemployment (the rate arising from all sources except fluctuations in aggregate demand), which declines from 5.5 percent to 5.3 percent during that period. That decline reflects CBO's expectation that the difficulty the long-term unemployed face in finding jobs (for example, because of the erosion of their skills or because of

employers' perception that their absence from the job market is an indication of their quality as workers) will gradually diminish but not completely disappear by 2022.<sup>12</sup> Both inflation and core inflation as measured by the PCE price index average 2.0 percent over that period; inflation as measured by the CPI-U is slightly higher. The

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12. Those difficulties also may lessen the downward pressure on wages from the slack in the labor market. See Gary Burtless, "Long-Term Unemployment: Anatomy of the Scourge," *Milken Institute Review*, vol. 14, no. 3 (July 2012), pp. 52–63.

interest rates on 3-month Treasury bills and 10-year Treasury notes average 3.7 percent and 5.0 percent, respectively, for the period.

### Fiscal Policy

The size of the federal deficits in CBO's projections has a significant influence on the projection of potential output by 2022. CBO estimates that, under current law, deficits will average 1.1 percent of GDP over the 2013–2022 period, and federal debt held by the public will decline to 58 percent in 2022. In contrast, under the alternative fiscal scenario, budget deficits would be much larger, averaging 4.9 percent of GDP over the 2013–2022 period, and federal debt as a percentage of GDP would rise to 90 percent. The higher deficits under the alternative fiscal scenario would lead to less private investment, lowering the stock of productive capital and reducing output and wages relative to the economy under current law. According to CBO's central estimates, the amount of real GDP in 2022 would be 0.4 percent lower, and the amount of real gross national product (GNP) would be 1.7 percent lower under the alternative fiscal scenario than under current law (see Table 2-2 on page 37).<sup>13</sup>

The projected effects of the alternative fiscal scenario on real GDP for the 2018–2022 period primarily reflect two opposing forces. People's incentives to work and save would be greater with that scenario's lower tax rates, but the larger budget deficits and growing federal debt would hamper national saving and investment and thus reduce output and income. Estimates made under different assumptions about the influence of marginal tax rates on labor supply and of deficits on saving and investment span a range for real GDP from a decrease of 2.0 percent to an increase of 2.1 percent and a range for real GNP from a decrease of 3.5 percent to an increase of 0.9 percent.<sup>14</sup> The reduction in national saving would cause interest rates (on 3-month Treasury bills and 10-year Treasury notes) to be about 0.4 percentage points higher under the alternative fiscal scenario, according to CBO's central estimates.

13. GNP differs from GDP primarily by including the capital income that residents earn from investments abroad and excluding the capital income that nonresidents earn from domestic investments. GNP is a better measure for analyzing the impact of growing deficits and debt on income because projected budget deficits would be partly financed by inflows of capital from other countries that would lead to a future flow of income to those countries. For a more detailed discussion, see Congressional Budget Office, *The 2012 Long-Term Budget Outlook* (June 2012), pp. 29–40.

In years beyond 2022, rising deficits under that scenario would lead to larger negative effects on GDP and GNP and to larger increases in interest rates relative to rates under current law. Ultimately, the policies assumed in the alternative fiscal scenario would lead to federal debt that would be unsustainable both from an economic and from a budgetary perspective.<sup>15</sup>

### Projections of Income

Economic activity and federal tax revenues depend not only on the amount of total income in the economy but also on how that income is divided among its constituent parts: wages and salaries, domestic economic profits, proprietors' income, interest and dividend income, taxes, and other categories. CBO forecasts various categories of income in the later years of the projection period by projecting their shares of total gross domestic income (GDI). (In principle, GDI equals GDP, because the costs of production are tracked as income; in practice, they differ because of difficulties in measuring both quantities.)

Labor income has fallen as a share of GDI during the economic recovery, reinforcing its downward trend since 1980 (see Figure 2-9).<sup>16</sup> During the first half of 2012,

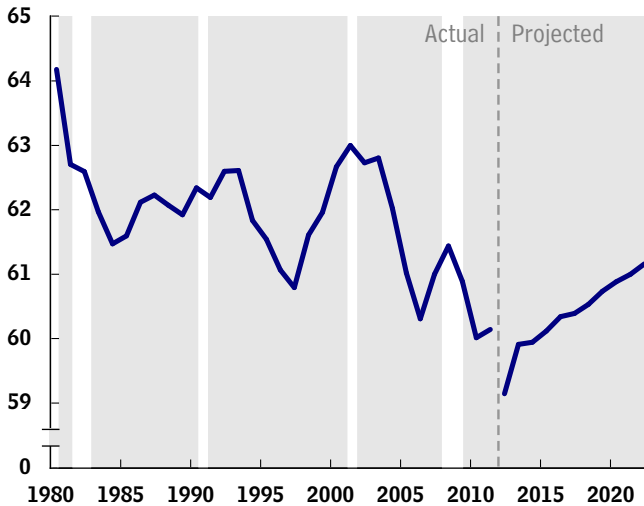
14. For two main reasons, the more favorable end of the range of estimated effects of the alternative fiscal scenario on output in 2022 has increased significantly over that presented in CBO's January 2012 forecast. First, on the basis of a review of research about the effects of deficits on investment, CBO reduced its low estimate for those effects. Second, after further review of the research on the responsiveness of the labor supply to changes in after-tax wages, CBO revised upward its estimate of the magnitude of that response. For more details on those assumptions, see Congressional Budget Office, *The 2012 Long-Term Budget Outlook* (June 2012), pp. 35–37. The additional growth in the federal debt under the alternative fiscal scenario would have other damaging effects not captured in the estimates presented here, such as increasing the risk of a fiscal crisis; see Congressional Budget Office, *Federal Debt and the Risk of a Fiscal Crisis* (July 2010).

15. For a more detailed discussion of the years after 2022, see Congressional Budget Office, *The 2012 Long-Term Budget Outlook* (June 2012), pp. 29–44.

16. CBO defines labor income as the sum of employees' compensation and 65 percent of proprietors' income. There is no consensus among analysts about the reasons for the recent decline. For different perspectives, see, for example, Adreas Hornstein, Per Krusell, and Giovanni Violante, "Technology–Policy Interaction in Frictional Labor Markets," *Review of Economic Studies*, vol. 74, no. 4 (October 2007), pp. 1089–1124; and Anastasia Guscina, *Effects of Globalization on Labor's Share in National Income*, Working Paper 06/294 (International Monetary Fund, December 2006), [www.imf.org/external/pubs/cat/longres.aspx?sk=19244.0](http://www.imf.org/external/pubs/cat/longres.aspx?sk=19244.0).

**Figure 2-9.****Labor Income**

(Percentage of gross domestic income)



Sources: Congressional Budget Office; Department of Commerce, Bureau of Economic Analysis.

Notes: Labor income is defined as labor compensation plus 65 percent of proprietors' income. Gross domestic income is the sum of all income earned in the production of gross domestic product.

Data are annual. Actual data, which are plotted through 2011, incorporate the July 2012 revisions to the national income and product accounts. Projections, which are plotted through 2022, are based on data issued before the revisions.

labor's share averaged 60 percent, down from 61 percent in the second quarter of 2009, the end of the most recent recession. Much of that recent weakness can be attributed to slower growth in wages and salaries, the largest component of labor income, than in the other components of GDI over the past three years. In CBO's projections, labor income grows faster than GDI over the next decade, bringing its share to about 61 percent by 2022, just below the historical average since 1980.

Domestic economic profits have rebounded sharply during the recovery.<sup>17</sup> From a low of 4.4 percent of GDI late in 2008, profits rose to 9.7 percent in the first quarter of

2012. The rebound of corporate profits was particularly dramatic in the financial sector but also was apparent in the nonfinancial sector. In CBO's projections, profits' share of GDI declines in 2013 as the economy contracts but then picks up again through 2015. Thereafter, profits decline steadily as a share of GDI in CBO's projection—to about 7.5 percent in 2022—because of the rising cost of corporate borrowing and the rise in labor income.

## Comparison with Other Economic Projections

CBO's current economic forecast differs in some respects from the forecast it issued in January 2012, mostly in the first few years of the projection period. It also differs in various ways from the *Blue Chip* consensus forecast published in August 2012 and from the Federal Reserve's forecasts presented at the June 2012 meeting of the Federal Open Market Committee.

CBO's current projection for the growth of real GDP is similar to its earlier projection for 2012, considerably slower for 2013, somewhat faster from 2014 through 2017, and slightly slower thereafter (see Table 2-4). The result is real GDP that is 1.2 percent lower in 2022 than in the January forecast. The downward revision to CBO's forecast for growth in 2013 primarily reflects two factors: One is the agency's reassessment of the underlying strength of the economy heading into next year. The other is that the fiscal tightening that will result from current law in 2013 is larger than previously estimated, mostly because of the February 2012 enactment of extensions through the end of the calendar year of emergency unemployment benefits and a cut of 2 percentage points in the employee's portion of payroll taxes. Those extensions raised the forecast of GDP growth in 2012 but lowered it in 2013.

Consonant with the revision to the GDP forecast, CBO projects a larger increase in the unemployment rate between 2012 and 2013 and a higher rate for the 2014–2017 period than it anticipated in January. During the rest of CBO's 10-year forecast, the unemployment rate is equal to the rate projected in January.

The current forecast includes a slightly higher rate of inflation but lower interest rates for the next few years. CBO revised its near-term inflation forecast upward both because the rate of inflation during the first half of 2012 was higher than the agency had anticipated and because it

17. Domestic economic profits are corporations' domestic profits adjusted to remove distortions in depreciation allowances caused by tax rules and to exclude the effect of inflation on the value of inventories. Domestic economic profits exclude certain income of U.S.-based multinational corporations that is derived from foreign sources, most of which does not generate corporate income tax receipts in the United States.

**Table 2-4.****Comparison of CBO's Current and Previous Economic Projections for Calendar Years 2012 to 2022**

	Forecast		Projected Annual Average	
	2012	2013	2014–2017	2018–2022
Fourth Quarter to Fourth Quarter (Percentage change)				
Real GDP				
August 2012	2.1	-0.5	4.3	2.4
January 2012	2.0	1.1	4.1	2.5
Nominal GDP				
August 2012	3.9	0.8	6.2	4.5
January 2012	3.3	2.6	5.8	4.5
PCE Price Index				
August 2012	1.4	1.4	1.8	2.0
January 2012	1.2	1.3	1.7	2.0
Consumer Price Index <sup>a</sup>				
August 2012	1.3	1.6	2.1	2.3
January 2012	1.4	1.5	1.9	2.3
GDP Price Index				
August 2012	1.8	1.4	1.8	2.0
January 2012	1.2	1.4	1.6	2.0
Employment Cost Index <sup>b</sup>				
August 2012	2.6	2.4	4.2	3.8
January 2012	2.2	3.8	3.5	3.7
Real Potential GDP				
August 2012	1.7	1.6	2.2	2.4
January 2012	1.8	1.9	2.5	2.5
Calendar Year Average				
Unemployment Rate (Percent)				
August 2012	8.2	8.8	7.3	5.4
January 2012	8.8	9.1	7.0	5.4
Interest Rates (Percent)				
Three-month Treasury bills				
August 2012	0.1	0.1	1.3	3.7
January 2012	0.1	0.1	2.0	3.7
Ten-year Treasury notes				
August 2012	1.8	1.8	3.4	5.0
January 2012	2.3	2.5	3.8	5.0
Tax Bases (Percentage of GDP)				
Wages and salaries				
August 2012	44.1	44.0	44.4	45.3
January 2012	44.0	43.5	44.2	45.2
Domestic economic profits				
August 2012	10.4	9.0	9.5	7.8
January 2012	9.8	9.3	9.4	7.5

Source: Congressional Budget Office.

Note: GDP = gross domestic product; PCE = personal consumption expenditures.

a. The consumer price index for all urban consumers.

b. The employment cost index for wages and salaries of workers in private industry.

concluded that slack in the economy would reduce the rate of inflation less in the near term than it had previously expected. CBO's forecast for inflation for the 2018–2022 period is largely unchanged since January.

The forecast for short-term interest rates is unchanged for 2012 and 2013 from January's projection, but lower rates are now anticipated for 2014 through 2017 as a consequence of changing market expectations and CBO's projection of a longer period of economic weakness. The forecast for long-term interest rates is lower from 2012 to 2017 compared with January's projections because of the drop in long-term rates by midsummer, changes in market expectations, and the weaker economic outlook over the next few years. During the second half of the 10-year projection period, short- and long-term interest rates alike are equal to those in CBO's January forecast.

CBO's projection for real GDP growth is similar to those of the *Blue Chip* consensus and the Federal Reserve's central tendency in 2012 but considerably lower than those of the other forecasters for 2013 (see Table 2-5).<sup>18</sup> Similarly, CBO's projection for the unemployment rate is about the same as that of the other forecasters for 2012

but significantly higher for 2013. CBO's projections for the rate of inflation are generally within the ranges of the Federal Reserve's forecasts for the next few years but lower than those of the *Blue Chip* consensus. CBO's forecast for the interest rate on 3-month Treasury bills is identical to that of the *Blue Chip* consensus for 2012 and 2013, but the forecast for the rate on 10-year Treasury notes is somewhat lower than that of the consensus. Those differences probably result from a variety of factors, including the economic news available when the forecasts were completed and the economic and statistical models used by the forecasters. But the largest point of divergence, particularly for 2013, is probably in the various forecasters' different assumptions about the government's future tax and spending policies. Forecasters other than CBO probably expect less fiscal tightening than that specified under current law.

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18. The Federal Reserve reports two sets of forecasts: a range (which reflects the forecasts of the members of the Board of Governors and the presidents of the Federal Reserve Banks) and a central tendency (the range excluding the three highest and three lowest projections).

**Table 2-5.****Comparison of Economic Projections by CBO, the *Blue Chip* Consensus, and the Federal Reserve**

(By calendar year)

	2012	2013	2014	Longer Run <sup>a</sup>
Fourth Quarter to Fourth Quarter (Percentage change)				
Real GDP				
CBO	2.1	-0.5	4.4	2.3
<i>Blue Chip</i>	1.8	2.5	n.a.	n.a.
Federal Reserve				
Range	1.6 to 2.5	2.2 to 3.5	2.8 to 4.0	2.2 to 3.0
Central tendency	1.9 to 2.4	2.2 to 2.8	3.0 to 3.5	2.3 to 2.5
PCE Price Index				
CBO	1.4	1.4	1.7	2.0
Federal Reserve				
Range	1.2 to 2.0	1.5 to 2.1	1.5 to 2.2	2.0
Central tendency	1.2 to 1.7	1.5 to 2.0	1.5 to 2.0	2.0
Core PCE Price Index <sup>b</sup>				
CBO	1.9	1.5	1.7	2.0
Federal Reserve				
Range	1.7 to 2.0	1.4 to 2.1	1.5 to 2.2	n.a.
Central tendency	1.7 to 2.0	1.6 to 2.0	1.6 to 2.0	n.a.
Consumer Price Index <sup>c</sup>				
CBO	1.3	1.6	1.9	2.3
<i>Blue Chip</i>	1.7	2.1	n.a.	n.a.
GDP Price Index				
CBO	1.8	1.4	1.6	2.0
<i>Blue Chip</i>	1.7	1.9	n.a.	n.a.

Continued



**Table 2-5.** **Continued**  
**Comparison of Economic Projections by CBO, the *Blue Chip* Consensus, and the Federal Reserve**

(By calendar year)	2012	2013	2014	Longer Run <sup>a</sup>
<b>Fourth-Quarter Level (Percent)</b>				
Unemployment Rate				
CBO	8.2	9.1	8.4	5.3
<i>Blue Chip</i>	8.1	7.7	n.a.	n.a.
Federal Reserve				
Range	7.8 to 8.4	7.0 to 8.1	6.3 to 7.7	4.9 to 6.3
Central tendency	8.0 to 8.2	7.5 to 8.0	7.0 to 7.7	5.2 to 6.0
Interest Rates				
Three-month Treasury bills				
CBO	0.1	0.2	0.2	3.8
<i>Blue Chip</i>	0.1	0.2	n.a.	n.a.
Ten-year Treasury notes				
CBO	1.7	2.0	2.7	5.0
<i>Blue Chip</i>	1.8	2.5	n.a.	n.a.

Sources: Congressional Budget Office; Aspen Publishers, *Blue Chip Economic Indicators* (August 10, 2012); Board of Governors of the Federal Reserve System, "Economic Projections of Federal Reserve Board Members and Federal Reserve Bank Presidents, June 2012" (June 20, 2012), [www.federalreserve.gov/monetarypolicy/files/fomcproptabl20120620.pdf](http://www.federalreserve.gov/monetarypolicy/files/fomcproptabl20120620.pdf).

Notes: The *Blue Chip* consensus is the average of about 50 forecasts by private-sector economists. The range of estimates from the Federal Reserve reflects the forecasts of the members of the Board of Governors and the presidents of the Federal Reserve Banks. The central tendency is that range without the three highest and three lowest projections.

The *Blue Chip* consensus does not provide forecasts of the PCE or core PCE price indexes. The Federal Reserve does not provide forecasts of the consumer price index, the GDP price index, or interest rates.

GDP = gross domestic product; PCE = personal consumption expenditures; n.a. = not applicable.

- a. For CBO, values are for 2022. For the Federal Reserve, values represent assessments of the rate to which each variable would be expected to converge under appropriate monetary policy and in the absence of further shocks to the economy.
- b. Excludes prices for food and energy.
- c. The consumer price index for all urban consumers.



## Changes in CBO's Baseline Since March 2012

**T**he Congressional Budget Office (CBO) anticipates that in the absence of further legislation affecting spending and revenues, the deficit for 2012 will be about \$1.1 trillion, or \$44 billion lower than the deficit CBO projected in March, when the agency completed its previous baseline projections (see Table A-1).<sup>1</sup> For the 2013–2022 period, CBO now estimates that the cumulative deficit under current law will also be smaller than its projection in March—by \$629 billion. Changes related to CBO's new economic forecast and technical changes each account for about \$300 billion of that 10-year reduction; only a small share stems from legislation enacted since the previous baseline was completed.<sup>2</sup>

For 2012, CBO now estimates that revenues will be \$21 billion less and outlays \$65 billion less than it had previously estimated. The decrease in projected revenues results primarily from smaller collections of individual and corporate income taxes than the agency expected in March. The drop in projected outlays for the current year

is the net result of a number of changes, primarily lower-than-expected spending for mandatory programs—most notably, Medicare and Medicaid.

For the 2013–2022 period, about three-quarters of the change in projected deficits stems from lower projections of spending, particularly for Medicaid. In total, projected outlays are now about 1 percent less and projected revenues are 0.4 percent more than the amounts CBO projected in March 2012.

### Economic Changes

CBO's latest economic forecast incorporates updates to its projections of gross domestic product (GDP), the unemployment rate, interest rates, inflation, and other economic variables that affect federal outlays and revenues. Those updates have led CBO to trim its projection of the deficit for 2012 by \$35 billion and to decrease its projection of the cumulative deficit for the 2013–2022 period by \$306 billion. That 10-year change in the deficit results largely from a boost in projected revenues.

### Changes to Projections of Revenues

Revisions to CBO's economic forecast have caused the agency to increase its projections of revenues by \$26 billion for 2012 and by \$244 billion (or 0.6 percent) for the 2013–2022 period. Relative to the agency's estimates in March, projected revenues are now lower over the 2013–2016 period but higher over the 2017–2022 period as a result of changes in the economic forecast. Those adjustments mainly reflect the following factors:

- CBO increased its estimates of domestic economic profits and of wages and salaries for 2012. All else being equal, those changes imply higher revenues from corporate income taxes, individual income taxes, and social insurance taxes.

1. Those projections were reported in Congressional Budget Office, *Updated Budget Projections: Fiscal Years 2012 to 2022* (March 2012).

CBO constructs its baseline in accordance with provisions of the Balanced Budget and Emergency Deficit Control Act of 1985 and the Congressional Budget and Impoundment Control Act of 1974. To project revenues and mandatory spending, CBO assumes that current laws, with only a few exceptions, will remain unchanged. To project discretionary spending, CBO assumes that appropriations through 2021 will adhere to the caps and automatic spending reductions mandated by the Budget Control Act of 2011 and that appropriations for 2022 will grow from the 2021 amount at the rate of inflation. The resulting baseline projections are not intended to be a prediction of future budgetary outcomes; rather, they serve as a benchmark that lawmakers can use to measure the potential effects of spending or revenue proposals.

2. CBO's updated baseline reflects three kinds of changes: the effects of legislation enacted since March, revisions to CBO's economic forecast, and technical changes (adjustments that do not stem from changes in legislation or new economic assumptions).

**Table A-1.****Changes in CBO's Baseline Projections of the Deficit Since March 2012**

(Billions of dollars)

	Total												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2013-2017	2013-2022
Deficit in CBO's March 2012 Baseline	-1,171	-612	-385	-257	-259	-201	-175	-224	-234	-237	-303	-1,713	-2,887
Economic Changes													
Changes in Revenues													
Individual income taxes	6	-12	-29	-35	-22	5	26	34	35	36	35	-93	72
Corporate income taxes	16	5	-9	-8	5	23	28	25	25	27	33	17	154
Social insurance taxes	4	1	-5	-8	-5	4	14	18	17	15	11	-13	62
Other	*	-2	-5	-2	-4	-5	-5	-6	-6	-5	-4	-18	-44
All Changes in Revenues	26	-7	-48	-53	-27	27	63	71	71	73	74	-108	244
Changes in Outlays													
Mandatory													
Medicare	0	1	*	2	6	10	15	19	23	27	31	20	136
Social Security	0	-1	*	3	5	8	9	10	10	11	13	14	67
Student loans	-3	-8	-8	-6	-4	-2	-1	*	*	0	0	-28	-29
Medicaid	*	-1	-2	-1	1	3	4	4	5	6	7	1	27
Other	-4	-4	-2	*	4	4	2	2	2	2	2	1	11
Subtotal	-7	-13	-11	-2	11	22	29	35	41	47	53	7	212
Discretionary	0	*	*	*	1	1	1	2	2	2	2	2	11
Net interest													
Debt service	*	*	*	*	*	-1	-4	-7	-9	-11	-13	-2	-46
Interest rates	-2	-12	-19	-40	-55	-40	-28	-19	-13	-9	-6	-165	-240
Subtotal	-2	-12	-19	-40	-56	-41	-32	-25	-22	-20	-19	-168	-286
All Changes in Outlays	-9	-25	-30	-42	-44	-18	-1	12	20	29	36	-158	-63
Total Economic Changes <sup>a</sup>	35	17	-18	-11	17	45	64	59	51	44	38	50	306
Technical Changes													
Changes in Revenues													
Individual income taxes	-43	-28	-33	-22	-19	-18	-11	-11	-12	-13	-13	-120	-179
Corporate income taxes	-32	-30	-18	-4	1	-1	*	1	1	1	-1	-53	-50
Social insurance taxes	23	4	4	1	3	1	-2	-3	-2	*	3	13	10
Other	4	4	16	25	19	5	7	11	15	17	17	68	135
All Changes in Revenues	-48	-51	-31	*	3	-12	-7	-2	3	6	6	-91	-85
Changes in Outlays													
Mandatory													
Medicaid	-5	-7	-30	-41	-44	-38	-32	-31	-31	-34	-37	-160	-325
Medicare	-19	-10	-13	-14	-16	-18	-20	-20	-20	-19	-17	-72	-169
Insurance subsidies and other health care	-1	1	7	12	18	22	22	23	22	22	23	59	171
Social Security	-2	-3	-3	-3	-3	-3	-2	-2	-2	-2	-2	-14	-26
Other	-17	6	1	-1	*	*	*	*	*	*	1	6	7
Subtotal	-44	-14	-38	-47	-45	-37	-32	-31	-31	-34	-32	-181	-341
Discretionary	-14	13	-1	*	*	1	1	1	1	1	1	12	19
Net interest													
Debt service	*	*	*	*	*	-2	-4	-5	-7	-9	-12	-3	-40
Other	-1	-3	-2	-2	-2	-3	-2	-2	-2	-3	-3	-12	-23
Subtotal	-1	-3	-2	-2	-3	-5	-6	-7	-9	-12	-15	-15	-63
All Changes in Outlays	-58	-4	-42	-49	-48	-41	-36	-37	-39	-45	-45	-184	-385
Total Technical Changes <sup>a</sup>	10	-46	11	48	50	29	30	34	42	51	52	92	300

Continued

Table A-1.

Continued

## Changes in CBO's Baseline Projections of the Deficit Since March 2012

(Billions of dollars)

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total	
												2013-2017	2013-2022
<b>Legislative Changes</b>													
Changes in Revenues													
Individual income taxes	*	*	*	*	*	*	*	*	*	*	*	1	*
Corporate income taxes	1	2	4	4	3	1	*	-1	-2	-2	-2	15	9
Social insurance taxes	*	*	*	*	*	*	*	*	*	*	*	1	*
Other	*	*	*	*	*	*	*	*	*	*	*	*	*
<b>All Changes in Revenues</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>*</b>	<b>-1</b>	<b>-2</b>	<b>-3</b>	<b>-3</b>	<b>17</b>	<b>8</b>
Changes in Outlays													
Mandatory	2	3	-1	-1	-2	-2	-2	-1	-1	-1	-1	-3	-9
Debt service	*	*	*	*	*	*	-1	-1	-1	-1	-1	-1	-4
<b>All Changes in Outlays</b>	<b>2</b>	<b>3</b>	<b>-1</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-2</b>	<b>-4</b>	<b>-14</b>
<b>Total Legislative Changes<sup>a</sup></b>	<b>-2</b>	<b>*</b>	<b>5</b>	<b>7</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>*</b>	<b>-1</b>	<b>-1</b>	<b>21</b>	<b>22</b>
<b>All Changes</b>													
<b>Total Effect on the Deficit<sup>a</sup></b>	<b>44</b>	<b>-29</b>	<b>-2</b>	<b>44</b>	<b>73</b>	<b>78</b>	<b>96</b>	<b>95</b>	<b>92</b>	<b>93</b>	<b>89</b>	<b>164</b>	<b>629</b>
<b>Deficit in CBO's August 2012 Baseline</b>	<b>-1,128</b>	<b>-641</b>	<b>-387</b>	<b>-213</b>	<b>-186</b>	<b>-123</b>	<b>-79</b>	<b>-130</b>	<b>-142</b>	<b>-144</b>	<b>-213</b>	<b>-1,549</b>	<b>-2,258</b>
<b>Memorandum:</b>													
Effects on the Deficit <sup>a</sup>													
From changes in revenues	-21	-56	-74	-48	-21	17	56	68	71	76	78	-182	167
From changes in outlays	65	26	73	92	94	61	40	27	20	17	12	346	462

Source: Congressional Budget Office.

Note: \* = between -\$500 million and \$500 million.

a. Negative numbers indicate an increase in the deficit.

■ For the period from 2013 to 2016, CBO lowered its projections of nominal GDP, which in turn resulted in a decrease in projected taxable personal income, including wages and salaries (starting in 2014) and capital gains realizations. Those changes led CBO to lower its estimates of receipts from individual income and social insurance taxes over the four-year period by a total of \$115 billion.

■ For the period from 2017 to 2022, CBO increased its projections of wages and salaries and corporate profits, changes that stemmed both from slightly larger projected shares of those kinds of income relative to GDP and from slightly higher projected amounts of GDP. In turn, CBO raised its projections of receipts from individual income taxes (by \$171 billion), from corporate income taxes (by \$160 billion), and from social insurance taxes (by \$78 billion). Those increases were

partially offset by small declines (totaling \$30 billion) in receipts from other revenue sources.

### Changes to Projections of Outlays

Revisions to CBO's economic forecast have prompted the agency to scale back its estimates of outlays (including debt service), reducing them by \$9 billion for the current year and by \$63 billion for the 2013–2022 period.

**Net Interest.** In total, CBO's projections of net interest costs for the 2012–2022 period have been revised downward—by \$286 billion—relative to the amount in the March baseline. The agency now projects that interest rates for all Treasury-issued securities will be generally lower through 2016, resulting in a drop in outlays of \$287 billion for the 10-year period. (For example, in CBO's current forecast, the interest rate to be paid on three-month Treasury bills is lower by more than 1 percentage point in 2015 than it was in the forecast

underlying the March baseline.) In the other direction, changes to CBO's projections of inflation, which affect the projected cost of inflation-protected securities, and to its estimates of net interest receipts from credit financing accounts have increased projected interest outlays by \$47 billion. Lower debt-service costs resulting from the projected decline in the cumulative deficit (stemming from changes to the economic outlook) have decreased outlays by \$46 billion for that same period.

**Mandatory Spending.** Updates to its economic forecast have caused CBO to pare back its estimate of mandatory outlays for the current year by \$7 billion but to boost its projections of such outlays for the 2013–2022 period by \$212 billion.

*Medicare and Medicaid.* The two largest health care programs account for most of the increase in projected spending for mandatory programs. Under current law, payment rates for most services in the fee-for-service sector of Medicare (such as hospital care and services provided by physicians, home health agencies, and skilled nursing facilities) are subject to automatic updates. Those updates are tied to changes in the prices of the labor, goods, and services that health care providers purchase, coupled with a downward adjustment for gains in economywide productivity (the ability to produce the same output using fewer “inputs”—such as hours of labor—than before). CBO's current projections of productivity are lower than they were in its previous forecast, and its projected prices for goods and services (including the cost of both labor and nonlabor inputs) are now higher. Consequently, CBO now anticipates higher payment rates for Medicare than it forecast in March, a change that raises projected outlays by \$136 billion (or about 2 percent) over the 2013–2022 period. In the Medicaid program, higher projected prices for medical services and the cost of labor are also expected to boost spending, by \$27 billion, between 2013 and 2022.

*Social Security.* Projected spending for Social Security over the 2013–2022 period has increased by \$67 billion (or 0.6 percent) as a result of changes in CBO's economic projections. The agency now anticipates that Social Security beneficiaries will receive a cost-of-living adjustment (COLA) in January 2013 of 1.1 percent, which is below the 1.3 percent COLA that CBO previously projected for that year. However, CBO's current projection for inflation in subsequent years raises estimated COLAs by an average of 0.2 percentage points each year from

2014 through 2017. Those changes reduce projections of benefit payments for 2013 and 2014 but increase them for every year thereafter. Benefits in the initial year of enrollment are affected by the growth of average wages and salaries; on net, CBO has boosted its projections of such growth, which also increases estimated benefit payments in each year of the 10-year period.

*Student Loans.* Consistent with the procedures set forth in the Federal Credit Reform Act of 1990 (P.L. 101-508), annual outlays for the student loan program represent the costs of the subsidies provided by the government. Those costs are measured as the present value of the future cash flows associated with new federal loans disbursed each year, calculated using the Treasury's borrowing rates to discount those cash flows.<sup>3</sup> In updating its economic forecast, CBO reduced its estimate of those rates for most years in the 2013–2022 period. With lower discount rates, the estimated present value of future cash flows associated with student loans increases (that is, such cash flows are discounted less). Because those future cash flows will be income to the government (in the form of loan repayments, interest payments, and default recoveries), CBO now anticipates that outlays for student loans will be \$29 billion less than it projected in March.

## Technical Changes

Technical updates to CBO's estimates of revenues and outlays—that is, revisions that do not stem from legislation or changes in economic assumptions—have culminated in a net decrease of \$10 billion in the estimated deficit for 2012 and a further decrease of \$300 billion in the cumulative deficit for the ensuing 10 years. Reductions in projected outlays were partially offset by smaller reductions in projected revenues.

## Changes to Projections of Outlays

Estimated spending drops by \$58 billion for 2012 and by \$385 billion for the following 10 years as a result of the technical revisions to CBO's projections. Downward adjustments to the agency's estimates of mandatory spending constitute the largest technical changes.

3. Present value is a single number that expresses a flow of current and future income (or payments) in terms of an equivalent lump sum received (or paid) today. The present value depends on the rate of interest (known as the discount rate) that is used to translate future cash flows into current dollars.

**Mandatory Spending.** Technical revisions related to mandatory programs have lowered projected spending for the current year by \$44 billion. The largest of such changes derives from lower-than-expected outlays for Medicare. For the 2013–2022 period, technical adjustments, mostly changes related to the major health care programs, further reduce projected mandatory spending, by a net amount of \$341 billion.

*Medicaid.* As a result of technical revisions, CBO now projects that Medicaid spending will be \$325 billion (or 7 percent) lower over the 2013–2022 period than it estimated in March. Most of that reduction—\$288 billion—stems from the recent Supreme Court decision, in *National Federation of Independent Businesses et al. v. Sebelius*, which determined that the expansion of Medicaid authorized under the Affordable Care Act (ACA) is a state option (rather than essentially a requirement, as originally envisioned in that law and incorporated by CBO in its previous estimates of spending).<sup>4</sup> As a result of the Court's decision, CBO now anticipates that some states will not expand their Medicaid programs at all or will not expand coverage to the full extent authorized by the ACA. CBO also expects that some states will eventually undertake expansions but will not do so by 2014, the year in which the optional coverage expansion takes effect under the ACA.<sup>5</sup> In addition to reducing projected Medicaid outlays because of the Supreme Court decision, CBO has scaled back those projections—by \$37 billion over the 2013–2022 period—because of other technical factors, including lower year-to-date spending for the program than CBO expected in March.

- 
4. The ACA comprises the Patient Protection and Affordable Care Act (Public Law 111-148) and the health care provisions of the Health Care and Education Reconciliation Act of 2010 (P.L. 111-152).
  5. What states will be able to do and what they will decide to do regarding the Medicaid expansion under the ACA are both highly uncertain. In particular, how flexible executive branch agencies will be regarding the choices that states have—particularly states' options for pursuing partial expansions—is unclear. Estimates by CBO and the staff of the Joint Committee on Taxation reflect an assessment of the probabilities of different outcomes and should not be viewed as representing a single definitive interpretation of how the ACA should or will be implemented in light of the Supreme Court decision. For more information, see Congressional Budget Office, *Estimates for the Insurance Coverage Provisions of the Affordable Care Act Updated for the Recent Supreme Court Decision* (July 2012).

*Medicare.* As a result of a recent slowdown in the growth of Medicare spending, CBO has reduced its projections of outlays for that program. On the basis of actual outlays for the program through June, CBO now expects that 2012 will be the third straight year in which the growth of Medicare spending will be substantially slower than CBO anticipated earlier in the same fiscal year. Thus, relative to its March projections, CBO has made technical revisions that lower its projections of spending for Medicare by \$19 billion for 2012 and by a total of \$169 billion (or 2 percent) for the 2013–2022 period. Those revisions are based primarily on lower-than-expected spending for Part B (Medical Insurance) services during the first part of calendar year 2012; this year's outlays for Part A (Hospital Insurance) and Part D (prescription drugs) are also lower than CBO estimated in March but by smaller amounts.

*Health Insurance Subsidies and Other Health Care Programs.* As a result of the recent Supreme Court decision, CBO and the staff of the Joint Committee on Taxation (JCT) have increased their estimates of what the government will spend on subsidies provided through the health insurance exchanges starting in 2014. Largely because fewer individuals will be eligible for Medicaid, CBO and JCT anticipate that more people will be eligible for and will enroll in the exchanges than had previously been projected. Consequently, outlays for premium assistance credits and cost-sharing subsidies will be higher, by \$164 billion, during the 2013–2022 period, accounting for most of the increase in health insurance subsidies and other health care programs. (For the same reason, revenues will be \$46 billion lower over that period.)

*Social Security.* CBO has reduced its projections for Social Security spending over the 2013–2022 period by \$26 billion (or 0.2 percent) on the basis of updated information about the Old-Age and Survivors Insurance (OASI) program and the Disability Insurance (DI) program. The agency now estimates that the number of people receiving benefits under the OASI program will be slightly lower than it projected in March and that payments for retroactive DI benefits (in general, those covering the time between the date of onset of an individual's disability and the awarding of benefits) will be smaller.

*Other Mandatory Programs.* Because of a variety of technical factors, CBO's projections of outlays for other mandatory programs are now \$17 billion lower for the current

year and \$7 billion higher for the following 10 years than they were in March.

**Discretionary Spending.** Technical adjustments to CBO's projections for a number of discretionary programs have resulted in a net decrease of \$14 billion in estimated outlays for 2012. The largest contributors to that decline, which is generally based on slower-than-expected spending, are federal education programs (a drop of \$5 billion) and military personnel and procurement (together, a reduction of \$3 billion).

Changes to projections of discretionary outlays between 2013 and 2022 yield a net increase of \$19 billion, which primarily reflects revisions to the rate at which appropriations are expected to be spent.

**Net Interest.** Technical updates have reduced projected outlays for net interest during the 2013–2022 period by \$63 billion—\$40 billion in debt-service costs as a result of technical changes to projections elsewhere in the budget and \$23 billion arising from technical changes to the interest projections.

### Changes to Projections of Revenues

Relative to its March projections, CBO has lowered its estimates of revenues by \$48 billion for 2012 and by \$85 billion (or 0.2 percent) for the 2013–2022 period—mostly for 2013 and 2014—for technical reasons. Various factors account for those revisions, the most significant of which is that collections of individual and corporate income taxes in 2012 have been slightly smaller than CBO had expected in March. For both sources of revenue but especially for corporate income taxes, CBO's new economic forecast anticipates slightly larger tax bases; however, downward technical adjustments to revenues have more than offset the increases that would have resulted from the updated economic projections alone. The main factors leading to those smaller collections will not be known for a year or more, until data from tax returns become available. However, CBO expects the effects of the shortfalls to dissipate over the next few years

because taxable income tends to revert to its historical relationship to GDP and effective tax rates tend to return to more typical levels in relation to statutory tax rates.

A factor offsetting those lower receipts from individual and corporate income taxes, particularly for the period from 2014 to 2016, is higher projected remittances by the Federal Reserve. Nearly all of the central bank's earnings on its investments are paid to the Treasury and recorded as revenues. Relative to its projection in March, CBO projects that the Federal Reserve will purchase and hold more interest-earning assets so as to push interest rates lower. That revision boosts estimates of Federal Reserve remittances by a total of about \$100 billion over the 2013–2022 period.

### Legislative Changes

Legislation enacted since the agency prepared its March baseline has had a modest impact on CBO's estimates of revenues and outlays. As a result of those new laws, CBO has increased its estimate of the deficit for 2012 by \$2 billion and reduced its projection of the cumulative deficit (including debt service) for the 2013–2022 period by \$22 billion.

Nearly all of the legislation-related revisions that CBO has made in its projections stem from enactment of the Moving Ahead for Progress in the 21st Century Act (Public Law 112-141). Among other revisions, the law made changes to the interest rate that pension plans can use in measuring their pension liabilities and determining the premiums they pay to the Pension Benefit Guaranty Corporation; it also extended, for one year, the existing 3.4 percent interest rate on newly issued subsidized student loans. Overall, as a result of P.L. 112-141, CBO has boosted estimated outlays by \$2 billion for the current year but trimmed such projections by about \$10 billion for the 2013–2022 period; projected revenues have been increased by nearly \$1 billion for 2012 and by almost \$9 billion over the following 10 years.





## CBO's Economic Projections for 2012 to 2022

**T**he tables in this appendix expand on the information in Chapter 2 by showing the Congressional Budget Office's (CBO's) economic projections for 2012 to 2022 (by calendar year in Table B-1 and by fiscal year in Table B-2). CBO does not forecast cyclical fluctuations in its projections for years after 2017. Instead, the projected

values shown in the tables for 2018 to 2022 reflect CBO's assessment of the effect of economic and demographic trends in the medium term but do not reflect an attempt to forecast the frequency or size of fluctuations in the business cycle.

**Table B-1.****CBO's Economic Projections, by Calendar Year**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Year to Year (Percentage change)</b>											
Real GDP	2.1	-0.3	3.1	4.8	4.5	3.8	3.1	2.6	2.4	2.2	2.3
Nominal GDP	3.9	1.3	4.6	6.5	6.5	5.9	5.3	4.7	4.4	4.3	4.3
PCE Price Index	1.7	1.3	1.6	1.7	1.8	2.0	2.0	2.0	2.0	2.0	2.0
Core PCE Price Index <sup>a</sup>	1.9	1.7	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Consumer Price Index <sup>b</sup>	1.8	1.4	1.8	2.0	2.2	2.3	2.3	2.3	2.3	2.3	2.3
Core Consumer Price Index <sup>a</sup>	2.1	1.9	1.8	1.9	2.1	2.2	2.2	2.3	2.2	2.2	2.2
GDP Price Index	1.8	1.6	1.5	1.7	1.9	2.0	2.0	2.0	2.0	2.0	2.0
Employment Cost Index <sup>c</sup>	2.2	2.5	3.0	3.9	4.4	4.6	4.4	4.1	3.8	3.6	3.4
<b>Calendar Year Average</b>											
Unemployment Rate (Percent)	8.2	8.8	8.7	7.7	6.7	5.9	5.5	5.5	5.4	5.4	5.3
Interest Rates (Percent)											
Three-month Treasury bills	0.1	0.1	0.2	0.3	1.8	3.1	3.7	3.8	3.8	3.8	3.8
Ten-year Treasury notes	1.8	1.8	2.4	3.0	3.8	4.5	4.9	5.0	5.0	5.0	5.0
Tax Bases (Percentage of GDP)											
Wages and salaries	44.1	44.0	44.1	44.2	44.5	44.8	45.1	45.3	45.4	45.5	45.5
Domestic economic profits	10.4	9.0	9.4	9.8	9.7	9.3	8.7	8.0	7.6	7.4	7.3
Tax Bases (Billions of dollars)											
Wages and salaries	6,925	6,986	7,335	7,837	8,389	8,954	9,484	9,958	10,426	10,894	11,372
Domestic economic profits	1,637	1,431	1,564	1,730	1,825	1,855	1,818	1,766	1,756	1,785	1,826
Nominal GDP (Billions of dollars)	15,687	15,889	16,627	17,714	18,857	19,973	21,024	22,004	22,982	23,968	24,992

Source: Congressional Budget Office.

Note: GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industry.

**Table B-2.****CBO's Economic Projections, by Fiscal Year**

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Year to Year (Percentage change)</b>											
Real GDP	2.0	0.4	1.9	4.7	4.6	4.0	3.4	2.6	2.4	2.3	2.2
Nominal GDP	3.9	2.0	3.3	6.4	6.5	6.1	5.5	4.7	4.5	4.3	4.3
PCE Price Index	2.0	1.3	1.5	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Core PCE Price Index <sup>a</sup>	1.9	1.7	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.0	2.0
Consumer Price Index <sup>b</sup>	2.3	1.4	1.7	2.0	2.1	2.3	2.3	2.3	2.3	2.3	2.3
Core Consumer Price Index <sup>a</sup>	2.1	1.9	1.7	1.9	2.0	2.2	2.2	2.3	2.3	2.2	2.2
GDP Price Index	1.9	1.7	1.4	1.6	1.8	2.0	2.0	2.1	2.0	2.0	2.0
Employment Cost Index <sup>c</sup>	2.0	2.5	2.7	3.7	4.3	4.6	4.5	4.2	3.9	3.7	3.5
<b>Fiscal Year Average</b>											
Unemployment Rate (Percent)	8.3	8.5	8.9	8.0	6.9	6.1	5.6	5.5	5.4	5.4	5.3
Interest Rates (Percent)											
Three-month Treasury bills	0.0	0.1	0.2	0.2	1.3	2.9	3.6	3.8	3.8	3.8	3.8
Ten-year Treasury notes	1.9	1.7	2.3	2.9	3.6	4.3	4.8	5.0	5.0	5.0	5.0
Tax Bases (Percentage of GDP)											
Wages and salaries	44.0	44.1	44.1	44.2	44.4	44.7	45.1	45.2	45.3	45.4	45.5
Domestic economic profits	10.4	9.4	9.2	9.7	9.7	9.4	8.8	8.2	7.7	7.5	7.3
Tax Bases (Billions of dollars)											
Wages and salaries	6,831	6,998	7,230	7,705	8,248	8,813	9,360	9,841	10,309	10,776	11,251
Domestic economic profits	1,623	1,483	1,509	1,699	1,810	1,850	1,832	1,776	1,754	1,776	1,817
Nominal GDP (Billions of dollars)	15,538	15,855	16,386	17,435	18,571	19,695	20,774	21,760	22,737	23,719	24,730

Source: Congressional Budget Office.

Note: GDP = gross domestic product; PCE = personal consumption expenditures.

a. Excludes prices for food and energy.

b. The consumer price index for all urban consumers.

c. The employment cost index for wages and salaries of workers in private industry.



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## About This Document

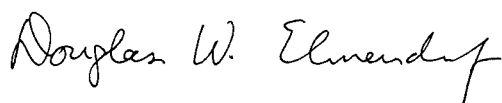
This volume is one of a series of reports on the state of the budget and the economy that the Congressional Budget Office (CBO) issues each year. It satisfies the requirement of section 202(e) of the Congressional Budget Act of 1974 for CBO to submit to the Committees on the Budget periodic reports about fiscal policy and to provide baseline projections of the federal budget. In keeping with CBO's mandate to provide objective, impartial analysis, this report makes no recommendations.

The economic projections that appear in this report were prepared by CBO's Macroeconomic Analysis Division, supervised by Wendy Edelberg, Kim Kowalewski, Robert Arnold, and William Randolph. The revenue projections were prepared by the agency's Tax Analysis Division, supervised by Frank Sammartino, David Weiner, Mark Booth, and Janet Holtzblatt; the staff of the Joint Committee on Taxation provided valuable assistance. The spending estimates were prepared by the Budget Analysis Division, supervised by Peter Fontaine, Theresa Gullo, Holly Harvey, Janet Airis, Tom Bradley, Kim Cawley, Jean Hearne, Jeffrey Holland, Sarah Jennings, and Sam Papenfuss.

The report was written by analysts in those divisions. The editing and presentation of the report was handled by CBO's editing and publishing group, supervised by John Skeen, and the agency's Web team, supervised by Joseph Miller.

CBO's Panel of Economic Advisers commented on an early version of the economic forecast underlying this report. Members of the panel are Raj Chetty, Menzie D. Chinn, Dan L. Crippen, Steven J. Davis, Robert E. Hall, Jan Hatzius, Douglas Holtz-Eakin, Simon Johnson, Charles I. Jones, Anil Kashyap, Lawrence Katz, Donald Kohn, June O'Neill, Rudolph G. Penner, Adam S. Posen, James Poterba, Joel Prakken, Carmen M. Reinhart, Alice Rivlin, Robert Shimer, Matthew Slaughter, and Stephen P. Zeldes. Mary Daly, Henry Farber, Christopher Foote, Nigel Gault, Casey Mulligan, Scott Stern, and James Stock attended the panel's meeting as guests. Although CBO's outside advisers provided considerable assistance, they are not responsible for the contents of this report.

The CBO staff members listed below prepared the economic, revenue, and spending projections; wrote the report; edited and published it and the supplemental materials posted along with it on CBO's Web site ([www.cbo.gov](http://www.cbo.gov)); or provided other support.



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August 2012

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Housing, model and data management

Energy prices

Automobile sector, research assistance

Net exports, exchange rates

Medium-term analysis of fiscal policy

Business investment, housing

Short- and medium-term analysis of fiscal policy

Short-term analysis of fiscal policy

Federal, state, and local government spending and revenues

Potential output, productivity

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Consumer spending, incomes

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Retirement income

Social insurance taxes, Federal Reserve System earnings, customs duties, miscellaneous receipts

Depreciation, international taxation

Corporate income taxes, estate and gift taxes

Individual income taxes, social insurance taxes, tax modeling

Estate tax modeling

Capital gains realizations, excise taxes

Customs duties, miscellaneous receipts

Tax modeling

Social insurance taxes, refundable tax credits, depreciation, tax modeling

Individual income taxes



## Spending Projections

### *Defense, International Affairs, and Veterans' Affairs*

Kent Christensen	Defense (projections, working capital funds, procurement, scorekeeping)
Sunita D'Monte	International affairs
Ann Futrell	Veterans' health care
Raymond Hall	Defense (research and development, stockpile sales, atomic energy)
William Ma	Veterans' readjustment benefits, reservists' education benefits
David Newman	Defense (military construction and family housing, military activities in Afghanistan and Iraq), veterans' housing
Dawn Sauter Regan	Defense (military personnel)
Matthew Schmit	Military retirement, military health care
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Julia Christensen	Food and Drug Administration, prescription drugs
Anna Cook	Prescription drugs
Stuart Hagen	Health insurance coverage
Lori Housman	Medicare
Paul Jacobs	Health insurance coverage
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Andrea Noda	Medicaid prescription drugs, long-term care, Public Health Service
Romain Parsad	Health insurance coverage
Lisa Ramirez-Branum	Medicaid, health insurance coverage, Public Health Service
Lara Robillard	Medicare

*Health (Continued)*

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Rebecca Yip	Medicare Part D, prescription drugs
Christopher Zogby	Health insurance coverage

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Deborah Kalcevic	Student loans, higher education
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Mark Grabowicz	Administration of justice, Postal Service
Kathleen Gramp	Energy, Outer Continental Shelf receipts, spectrum auction receipts
Gregory Hitz	Agriculture
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David Hull	Agriculture

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Aurora Swanson	Water resources, Fannie Mae and Freddie Mac
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*Other Areas and Functions*

Janet Airis	Legislative branch appropriation bills
Shane Beaulieu	Computer support
Edward Blau	Authorization bills
Barry Blom	Federal pay, monthly Treasury data
Jared Brewster	Interest on the public debt, national income and product accounts
Joanna Capps	Appropriation bills (Labor–Health and Human Services, State–Foreign operations)
Mary Froehlich	Computer support
Avi Lerner	Troubled Asset Relief Program, automatic budget enforcement, other interest
Amber Marcellino	Federal civilian retirement
Damien Moore	Fannie Mae and Freddie Mac
Virginia Myers	Appropriation bills (Commerce–Justice, financial services, general government)
Mitchell Remy	Fannie Mae and Freddie Mac
Mark Sanford	Appropriation bills (Agriculture, Defense)
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## **Writing**

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